

**THE RELATIONSHIP BETWEEN PERSON-ORGANIZATION
FIT AND EMPLOYEE OUTCOMES: THE MEDIATING ROLE
OF PSYCHOLOGICAL NEED SATISFACTION AND
EMPLOYEE ATTITUDES**

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ABSTRACT

The purpose of this thesis is to conduct an empirical research study of academicians in Malaysian higher education institutions. The first objective is to examine the relationships between person-organization fit (P-O Fit), psychological need satisfaction (PNS), employee attitudes and employee outcomes in higher education institutions in Malaysia. The second objective is to investigate the mediating effects of PNS on the relationships between P-O Fit and employee attitudes. The third objective revolves around examining the mediating effects of employee attitudes on the relationship between P-O Fit and employee outcomes. The final objective is to investigate the mediating effects of employee attitudes on the relationships between PNS and employee outcomes.

The study was conducted based on personally administered questionnaires. Data obtained from 295 academicians and their supervisors through multi-source ratings have been collected, which represents 53% response rate. The PLS-SEM used in this study allowed the analysis of the simultaneous method with mediation relationships. The results of the present study found that there were positive relationships between P-O Fit and PNS and affective OC, PNS and employee attitudes and outcomes, and continuous OC and in-role performance. Moreover, PNS also mediated the relationship between P-O Fit and employee attitudes. The current study concludes that continuous OC represents competitive mediation of the relationship between PNS and OCB. The implications of the study findings and directions for future research are discussed at the end of this study.

Keywords: *Person-Organization Fit, Psychological Need Satisfaction, employee attitudes, employee outcomes, Organizational Citizenship Behaviour.*

DEDICATION

To my beloved parents who have waited so long for this,

Ayahanda Hj Sharom Atan

&

Bonda Hj Zainab Abdul Rahman

To my beloved husband, Sheikh Mohd Khadri Sheikh Zahari

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In the name of Allah, the Most Merciful, the Most Beneficent.

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LIST OF ABBREVIATIONS AND TERMS

AOC	affective organizational commitment
COC	continuous organizational commitment
HE	higher education
HEIs	higher education institutions
NOC	normative organizational commitment
OC	organizational commitment
OCB	OCB
P-E fit	person-environment fit
P-G fit	person-group fit
P-O Fit	P-O Fit
P-S fit	person-supervisor fit
PNS	PNS
SDT	self-determination theory
SIT	social identity theory

CHAPTER 1

THESIS OVERVIEW

1.1 STUDY BACKGROUND

Employees all over the world have been widely recognized and acknowledged as a critical resource in the competitive global marketplace, which in turn creates a growing interest among organizational scholars to understand the motivational implications of person-organization fit (P-O Fit) for employee work attitudes and behaviours (Kim, Aryee, Loi, & Kim, 2013). Furthermore, the heart of P-O Fit was proposed to have congruency between employee values and the organization values (Posner, 2010). As a result, many researchers have shown their interest in exploring P-O Fit, whereby a significant number of studies have been performed to examine the relationship between P-O Fit and organizational outcome and performance (Posner, 2010; Leung & Chaturvedi, 2011; Kim, Aryee, Loi, & Kim, 2013; Chinomona, Dhurup, & Chinomona, 2013; Vveinhardt & Gulbovaitè, 2013; Cha, Chang, & Kim, 2014; Demir, Demir, & Nield, 2015). These studies seem to suggest that P-O Fit is positively related to attitude and behaviour (Amos & Weathington, 2008; Tak, 2011; Jung & Takeuchi, 2013). In relation to this, it has been argued that the growing studies performed on the relationship between P-O Fit and performance only manage to provide limited insight into the direct effects of P-O Fit on the employee outcomes.

P-O Fit is assumed to be able to enhance employee outcomes, which is believed to improve organizational performance. Accordingly, researchers have argued the importance of considering the effects of P-O Fit on employee attitudes and behaviours as a more prominent indicator, which may be regarded as an intermediary outcome in the relationship between P-O Fit and organizational performance (Resick, Baltes, & Shantz, 2007; Liu, Liu, & Hu, 2010; Meyer, Hecht, Gill, & Toplonytsky, 2010; Kazemi, 2014; Yu, 2014).

In this study, the particular aim is to empirically examine the effect of P-O Fit on employee outcomes in Higher Education Institutions in Malaysia. Apart from that, the study also seeks to examine the mediating effect of psychological need satisfaction (PNS) as well as employee attitudes (job involvement and organizational commitment) on the mentioned relationship. PNS refers to a set of needs satisfaction that drives an individual to actualize their potential by flourishing it to satisfy their needs for autonomy, competence, and relatedness (Deci et al., 2001). Meanwhile, job involvement is described as the level of engagement by an employee as well as their enthusiasm in performing prescribed tasks, whereas organizational commitment refers to the level of attachment an employee has to an organization. Therefore, this study is expected to contribute to the literature in the fields of P-O Fit, PNS, job involvement, and organizational commitment through the tests conducted on the mediating effect of these variables, particularly on the relationship between P-O Fit and employee outcomes.

The main objective of this research is to create a theoretical model to develop an advanced understanding related to the impact of P-O Fit on PNS, employee work

attitudes (job involvement and organizational commitment), and employee outcomes (in-role performance and OCB). The topic of compatibility between employees and organizations is significant to the professionals in an organization because it addresses unique and positive aspects of both individual and organizational outcomes. This study uses academicians as the empirical context for validating the hypothesis.

1.2 JUSTIFICATION FOR THE STUDY

The first objective of this study is to observe several possible relationships between P-O Fit, PNS, employee attitudes (job involvement and organizational commitment) and employee outcomes (in-role performance and OCB) in higher education institutions in Malaysia.

The current study aims to expand the previous research performed on the relationships of P-O Fit and employee outcomes by examining the mentioned relationships in several Malaysian higher education institutions. In recent years, there has been growing interest among researchers in examining the relationship between P-O Fit and performance. However, most of this research was conducted in only a few countries, namely the United States (Cable & DeRue, 2002; Neal Schmitt, Oswald, Friede, Imus, & Merritt, 2008; Gregory, Albritton, & Osmonbekov, 2010), Israel (Yaniv, Lavi, & Siti, 2010), Turkey (Demir, Demir, & Nield, 2015), South Korea (Kim et al., 2013), Singapore (Greguras & Diefendorff, 2009), and Spain

(Vilela, González, & Ferrín, 2008), which clearly suggests that little is known about the nature of this relationship in Malaysia.

It is worth noting that a number of studies have identified the outcomes of PNS (Patrick, Knee, Canevello, & Lonsbary, 2007; Dysvik, Kuvaas, & Gagné, 2013; Molix & Nichols, 2013), but only a few investigated its antecedents. On top of that, the attraction-selection-attrition model (ASA Model) tends to posit that employees are attracted to join and stay in organizations that possess similar characteristics or values as they do (Deci et al., 2001). Self-Determination Theory (SDT) argues that individuals tend to seek situations that allow themselves to satisfy their psychological needs. Hence, the current study predicts that individuals will be more attracted to organizations that possess similar values (ASA Model) because it allows them to fulfil their innate psychological needs for autonomy, relatedness, and competence which are closely related to their commitment and desire to stay in the organization (Greguras & Diefendorff, 2009). Therefore, this study aims to examine the relationship between P-O Fit and the PNS.

The same applies to the relationship between PNS and employee outcomes, whereby only a limited number of studies were conducted for the purpose of linking PNS and employee outcomes (Baard et al., 2004; Blais & Brière, 1992; Gagne & Deci, 2005; Greguras & Diefendorff, 2009) and none has been conducted in Malaysia to evaluate this relationship. Also, many researchers interested in examining the relationship between P-O Fit and employee attitudes (job involvement and organizational commitment). The relationships found significant and positive outcomes (Jung &

Takeuchi, 2013; Kazemi, 2014; Leung & Chaturvedi, 2011; Maden & Kabasakal, 2014; Nyambegera, Daniels, & Sparrow, 2001; Takeuchi & Takeuchi, 2013). An example of employees who perceive their values to match their organizations' values, they are more likely to identify with the organization and feel involved with the vision and mission of the organizations.

The relationships between employees' attitudes and employees' outcomes have been examined in numerous studies (Diefendorff et al., 2002; Chiu & Tsai, 2006; Dimitriades, 2007; Chughtai, 2008; Mohsan et al., 2011; Biswas, 2011; Yen and Ok, 2011; Islam, Khan, Ahmad, & Ahmed, 2012; Ueda, 2012; Zhang, 2013). These studies support the existence of positive relationships between job involvement and employees' outcomes for example. However, the relationship between job involvement and in-role performance only managed to develop a weak relationship; hence, an in-depth investigation is necessary to be conducted (Islam et al., 2012).

Organizations more focus on committed employees because they are always expected to perform better (Conway & Briner, 2012) and willing to give something of themselves in order to contribute to the organization's wellbeing (Mowday, Porter, & Steers, 1982). There are several empirical evidence from past studies which can confirm the relationship between organizational commitment and job performance (Kim, 2006; Vilela et al., 2008; Khan et al., 2010; Biswas, 2011; Islam et al., 2012; Suliman & Kathairi, 2013; Kazemi, 2014).

The present research examines the potential effects of both P-O Fit and the PNS on employee attitudes, namely job involvement and organizational commitment. According to previous studies, job involvement and organizational commitment were found to be positively related to a similar range of employee outcomes for P-O Fit (Yousef, 2000; Islam, Khan, Ahmad, & Ahmed, 2012; Kappagoda, 2012; Rotenberry & Moberg, 2007). However, there is a lack of available information on how work attitudes can be established and maintained. According to Vilela, González, and Ferrín (2008), some organizations may eventually choose to consider P-O Fit to achieve positive employee outcomes. The establishments include the need for organizations to focus on work attitudes such as organizational commitment and job satisfaction by attracting and selecting employees who are able to “fit” or adapt well to the company.

Certain employees might find their own values to be very similar to the values of their organization; hence, they will be more committed and satisfied with their organization. This, in turn, will have a positive influence on OCB. Moreover, Greguras and Diefendorff (2009) indicated that employee attitudes and performance can possibly be enhanced when employees perceive that they are adapting well to the organization as well as when their psychological needs are satisfied. Therefore, the current study proposes that both P-O Fit and PNS are the predictors of employee attitudes (job involvement and organizational commitment), particularly in higher educational institutions.

The second objective is to examine the mediating effects of PNS on the relationship between P-O Fit and employee attitudes (job involvement, affective OC, normative OC and continuous OC). A study by Greguras & Diefendorff (2009) found that autonomy need satisfaction mediates the relationship between P-O Fit and effective organizational commitment. This theoretical assumption remains largely untested and it is appropriate to test this hypothesis in this study.

The third objective is to examine the mediating effects of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationship between P-O Fit and employee outcomes (in-role performance and OCB). The findings of recent studies suggest that P-O Fit is positively related to desirable employee outcomes such as in-role performance and OCB (Yaniv, Lavi & Siti, 2010; Chinomona, Dhurup, & Chinomona, 2013; Kim, Aryee, Loi, & Kim, 2013; Demir, Demir, & Nield, 2015). However, the mechanisms that cause P-O Fit to affect employee outcomes still require more research (Hoffman & Woehr, 2006; Cha, Chang, & Kim, 2014). Several mechanisms have been proposed by other researchers such as psychological empowerment (Kazemi, 2014) and perceived social exchange (Kim et al., 2013). The current study proposes to broaden this particular base of empirical evidence by considering mediating variables, namely job involvement and organizational commitment in relation between P-O Fit to employee outcomes.

The final objective is to examine the mediating effects of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationships between PNS and employee outcomes (in-role performance and OCB). According to

the findings from recent studies, PNS is suggested to be positively related to a number of work-related outcomes such as in-role performance and OCBs (Baard, Deci, & Ryan, 2004; Greguras & Diefendorff, 2009). However, the mechanisms that influence PNS to affect employee outcomes will need to be further investigated (Patrick et al., 2007; Sylvester et al., 2014). One of the mechanisms proposed is an organizational commitment (Greguras & Diefendorff, 2009). In an attempt to address this issue, the current study will also test the mediating effects of job involvement and organizational commitment on the relationship between PNS and employee outcomes.

1.3 SCOPE AND SIGNIFICANCE OF THE STUDY

1.3.1 Academicians of HEIs in Malaysia

The development of Higher Education Institutions (HEIs) in Malaysia started with the establishment of the University of Malaya in 1962. The development includes increased numbers of public and private universities, intense growth of student enrolments, expansion of courses offered by higher education institutions in various fields especially in science and technology, implementation of meritocracy system in students' enrolment, increased use of internet and web-based teaching, implementation of a more stringent assessment and appraisal system, additional government and private funding as well as accompanying research opportunities (Ahmad, 1998; Din, 2001; Hassan, 2001; Kamsari, 2007; Education, 2012). These changes were caused by various factors such as the pressures of demand, the cultural

shift in the how higher education is perceived, financial issues, structuring and managing diversity, and an assortment of changes in university missions or emphasis.

All of these changes further demonstrate that ‘university academics do complex work in an increasingly demanding environment’ (Houston, Meyer, & Paewai, 2006). Hagen (2002) asserts that universities are considered as the largest ‘knowledge-based’ institutions in the region. Hence, academicians have been urged by industry and policy makers to transform their traditional roles of teaching and research by adding an additional pivotal role in economic regional development. In other words, university academics are expected to aid economic regeneration by disseminating their knowledge and expertise through industry linked partnerships. However, each party (industry, policy makers, society, government, and universities) needs to be aware that their demands on academicians can lead to uncertainty in terms of their academic role which can possibly affect their work-related attitudes and performance. Briggs (2005) argues that “...lack of clarity about roles introduces role ambiguity and role conflict with significant impact on the achievement of personal and organizational goals, resulting in employee anxiety and dissatisfaction and lack of organizational effectiveness amongst academic staff” (p. 257).

HEIs of Malaysia have carried out various programs to assist academicians in achieving better learning and development such as training programs, improved facilities, scholarship opportunities, and revising compensation packages. The funds allocated for academicians required them to perform in their profession and be loyal and sincere with the institution. At the same time, academicians also feel the need to

receive benefits and rewards from HEIs. On the same note, the continuous growing amount of new academicians that join the service produce high turnover. Therefore, HEIs need a mechanism that could assist in encouraging, developing, and disciplining them. Hence, academicians and HEIs need to be compatible with each other, particularly in terms of their values congruence. Apart from all the benefits for the academicians, it also contributes to the sustainable development of the institutions.

1.3.2 The Importance of P-O Fit in Hiring and Selecting Employees in Malaysian Recruitment Practices

Today, an organization's success is directly linked to the talent it can recruit. Recruitment is critical not only for sustained competitive advantage but also for basic organizational survival (Taylor & Collins, 2000). Many organizations expressed a rising interest in selecting and hiring employees that they can retain longer. The concept of fit in employee selection has received growing attention in recent years (Cooman et al., 2009; Sekiguchi, 2004; Uggerslev, Fassina, & Kraichy, 2012), however most of the studies were conducted in developed countries.

The use of P-O Fit is one of the alternative selection approaches that many practitioners and researchers recommend (Lauver & Kristof-Brown, 2001; Sekiguchi, 2004). They argue that managers should select job applicants who share the values and visions of the organization (Bowen, Ledford, & Nathan, 1991). They advocate this view by referring to employment interviews to show that P-O Fit plays a crucial role in selection processes. Other practitioners and researchers have created

controlled research settings (using hypothetical applicants) to examine the role that fit plays in hiring decision-making (Sekiguchi, 2004). Recent meta-analyses conducted by several researchers found that P-O Fit is related to many positive individual outcomes, indicating that P-O Fit should be considered when selecting employees (Hoffman & Woehr, 2006; Kristof-Brown, Zimmerman, & Johnson, 2005; Verquer, Beehr, & Wagner, 2003).

P-O Fit is popular in organizational behaviour and personnel management because it significantly affects employees' turnover intention, organizational citizen behaviour, working attitude, ethical behavior and job performance which increased attention in the academic and practical management field. P-O Fit is defined as the "compatibility between people and organizations that occurs when at least one entity provides what the other needs or they share similar fundamental characteristics or both" (Kristof-Brown et al., 2005). In increasing productivity and performance, one of the factors that is the degree of fit between a person and the organization (Silverthorne, 2004).

In the context of HEIs in Malaysia, selecting and recruiting quality academicians, who align with the vision and mission of the institutions, are important. Employees in general and academicians especially are the most valuable asset for any educational organization (El-sakka, 2016). In line with that, the academicians themselves must be highly productive and resourceful personnel in a wide range of disciplines to maintain the future development of the nation. Competition and the lack of recruitment processes make finding and retaining employees a major priority for organizations (Flegley, 2006). Nowadays, job seekers

are concerned with choosing the most appropriate organization for them to work with and the most appropriate job. The priority has shifted from the conventional models, which hire new employees based on knowledge, skills and abilities, to hiring for organizational compatibility, which fits the individual's personality, beliefs and values with the organizational culture, norms and values (Awang, Amir, Osman, & Mara, 2013).

Thus, the current study will contribute practically by helping decision makers and persons in charge of selecting academic staff at HEIs in Malaysia to improve attitudes and outcomes, by understanding the relationship between P-O Fit, PNS, employee attitudes and outcomes. The decision makers in educational institutions must also pay more attention to the academician's perceptions of their organizations. In this regard, P-O Fit has to be seen as a crucial tool for managing them, as it plays a vital role in selecting, socializing and training academic members (Vivian Chen, Lee, & Yvonne Yeh, 2008), which can be considered as a competitive advantage for these institutions. In order to select academic members whose personalities and values match with their organizations' values and culture as much as possible to achieve P-O Fit. Personality tests and many other tests within the recruitment and hiring processes can be done prior to selection. Unfortunately, this is not the practice of the educational institutions in Malaysia.

Values congruence between the academicians and the organizations is achieved during the recruitment and selection process as potential employees explore and develop perceptions of their fit with the organization in terms of congruence between

their value set and that of the recruiting organization. They will potentially select themselves out of the recruitment process if they perceive a misfit between their enduring value set and that of the hiring organization. Therefore “matching the right people with the right organisation” is the prerequisite for satisfactory performance of the recruitment process.

The need to examine these factors that affect employee selection and hiring are crucial for organizational success, especially in Malaysia. Likewise, most of the empirical research on P-O Fit in employee selection and hiring are conducted in western countries and little empirical research has been conducted in Asia (Sekiguchi, 2007; Srivastava & Bhatnagar, 2008).

1.4 RESEARCH OBJECTIVES

The current study intends to test the effects of employee’s perceptions of P-O Fit on PNS, employee attitudes such as job involvement and organizational commitment and employee outcomes such as in-role performance and OCB. According to Social Identity Theory (SIT), employees define themselves in terms of group membership and feel recognised when the employer values their contributions towards the organization, which then predict employee attitudes (Cable & Edwards, 2004). The major assumption of this theory is that the employees will have the tendency to achieve and maintain a positive attitude and behaviour. Also, the employees will have a tendency to achieve and maintain a social identity. When the employees feel

that their needs are being taken care of, they feel a sense of belonging to the organization.

The current study also introduces self-determination theory (SDT) as an alternative theoretical lens through which the relationship between PNS and employee outcomes could be explained. According to SDT, the satisfaction of the three basic psychological needs (the need for autonomy, competence and relatedness) will lead to high levels of intrinsic motivation and internalization of external values, which in turn, leads to positive employee outcomes (Gagne & Deci, 2005). SDT is highly relevant in predicting employee attitudes and outcomes. Furthermore, its assertions have wide-spread empirical support in different disciplines and international contexts (Greguras & Diefendorff, 2009).

However, the actual role of PNS on the relationship between P-O Fit and employee attitudes still remains largely untested except in a study by Greguras & Diefendorff (2009). Regarding this issue, the current study will test the mediating effects of PNS and employee attitudes (job involvement and organizational commitment) on the relationships between P-O Fit and employee outcomes (in-role performance and OCB). Finally, the current study extends previous research on the role of employee attitudes on the relationships between both P-O Fit and PNS, and employee outcomes by examining these relationships in the Malaysian HEIs.

The objectives of this research are stated as follows:

1. To observe several possible relationships between person-organization fit (P-O Fit), psychological need satisfaction (PNS), employee attitudes (job involvement, affective OC, normative OC, and continuous OC) and employee outcomes (in-role performance and organizational citizenship behaviour (OCB)) in higher education institutions in Malaysia.
2. To examine the mediating effects of PNS on the relationship between P-O Fit and employee attitudes (job involvement, affective OC, normative OC and continuous OC).
3. To examine the mediating effects of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationship between P-O Fit and employee outcomes (in-role performance and OCB).
4. To examine the mediating effects of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationships between PNS and employee outcomes (in-role performance and OCB).

1.5 RESEARCH QUESTIONS

The following research questions were formulated for the purpose of accomplishing the aforementioned objectives:

1. What is the relationship between employees' perceptions of P-O Fit and their work outcomes in Malaysian Higher Education Institutions?
2. What is the relationship between employees' perceptions of P-O Fit and their PNS (PNS) in Malaysian Higher Education Institutions?
3. What is the relationship between PNS and employees' outcomes in Malaysian Higher Education Institutions?
4. What is the relationship between employees' perceptions of P-O Fit and their work attitudes in Malaysian Higher Education Institutions?
5. What is the relationship between employees' attitudes and their outcomes in Malaysian Higher Education Institutions?
6. What is the relationship between PNS and employees' attitudes in Malaysian Higher Education Institutions?
7. Does PNS mediate the relationship between P-O Fit and employees' attitudes?
8. Do employee attitudes mediate the relationship between P-O Fit and employees' outcomes?
9. Do employee attitudes mediate the relationship between PNS and employees' outcomes?

1.6 RESEARCH METHODOLOGY

The present study is positioned within the positivist research paradigm. Hence, this study chose to employ a descriptive cross-sectional design in order to fulfill the research objectives. The target population for this study comprises of academicians in both public and private universities in Malaysia.

The data collection method for this study is based on convenience sampling, whereby a number of academicians including tutors, senior lecturers, lecturers, associate professors, and professors are selected from public and private universities in Malaysia. The purpose of adopting convenience sampling method is due to the challenges of gathering multiple sources based on the academicians' ratings of performance or employees-supervisor dyads survey and locations of the universities.

A questionnaire survey was used to collect the data of this study. The questionnaire was written in English language and pretested by forty academicians from public and private universities in Malaysia. The questionnaires were then distributed to a total of 600 academicians in Malaysian public and private universities. The distribution of questionnaires resulted in a total of 295 completed questionnaires, thus providing an effective response rate of 49.1%.

The data were then analysed using SEM-PLS 3.0. The PLS-SEM analysis was chosen due to the advantages offered over the covariance approach. The measurement model is validated before proceeding with the evaluation of the structural model. The PLS-SEM approach was found to be in agreement with the researcher's study, the complex structural model, small sample size, and does not require normal data distribution (Chin & Newsted, 1999; Hair, Hult, Ringle, & Sarstedt, 2014)

1.7 RESEARCH MAP

Research map: The Relationship between P-O Fit and Employee Outcomes: The Mediating Role of PNS and Employee Attitudes			
Chapter 1 Research Objectives:	Chapter 1 Research Questions	Hypothesis	Data Analysis
1. To observe several possible relationships between P-O Fit, PNS, employee attitudes (job involvement, affective OC, normative OC, and continuous OC) and employee outcomes (in-role performance and OCB) in higher education institutions in Malaysia.	1) What is the relationship between employees' perceptions of P-O Fit and their work outcomes in Malaysian Higher Education Institutions?	<p><i>Hypothesis 1a: P-O Fit is positively related to In-role Performance</i></p> <p><i>Hypothesis 1b: P-O Fit is positively related to OCB</i></p>	Path Analysis Using PLS-SEM
	2) What is the relationship between employees' perceptions of P-O Fit and their PNS in Malaysian Higher Education Institutions?	<i>Hypothesis 2: P-O Fit is positively related to PNS.</i>	
	3) What is the relationship between PNS and employees' outcomes in Malaysian Higher Education Institutions?	<p><i>Hypothesis 3a: PNS is positively related to In-role Performance.</i></p> <p><i>Hypothesis 3b: PNS is positively related to OCB.</i></p>	

	<p>4) What is the relationship between employees' perceptions of P-O Fit and their work attitudes in Malaysian Higher Education Institutions?</p>	<p><i>Hypothesis 4a: P-O Fit is positively related to Job Involvement</i></p> <p><i>Hypothesis 4b1: P-O Fit is positively related to Affective Organizational Commitment.</i></p> <p><i>Hypothesis 4b2: P-O Fit is positively related to Normative Organizational Commitment.</i></p> <p><i>Hypothesis 4b3: P-O Fit is positively related to Continuous Organizational Commitment.</i></p>	
	<p>5) What is the relationship between employees' attitudes and their outcomes in Malaysian Higher Education Institutions?</p>	<p><i>Hypothesis 5a: Job Involvement is positively related to In-role Performance.</i></p> <p><i>Hypothesis 5b: Job Involvement is positively related to OCB.</i></p> <p><i>Hypothesis 5c1: Affective Organizational Commitment is positively related to In-role Performance.</i></p> <p><i>Hypothesis 5c2: Normative Organizational Commitment is positively related to In-role Performance.</i></p> <p><i>Hypothesis 5c3: Continuous Organizational Commitment is positively related to In-role Performance.</i></p>	

		<p><i>Hypothesis 5d1: Affective Organizational Commitment is positively related to OCB.</i></p> <p><i>Hypothesis 5d2: Normative Organizational Commitment is positively related to OCB.</i></p> <p><i>Hypothesis 5d3: Continuous Organizational Commitment is positively related to OCB.</i></p>	
	6) What is the relationship between PNS and employees' attitudes in Malaysian Higher Education Institutions?	<p><i>Hypothesis 6a: PNS is positively related to Job Involvement.</i></p> <p><i>Hypothesis 6b1: PNS is positively related to Affective Organizational Commitment.</i></p> <p><i>Hypothesis 6b2: PNS is positively related to Normative Organizational Commitment.</i></p> <p><i>Hypothesis 6b3: PNS is positively related to Continuous Organizational Commitment.</i></p>	
2. To examine the mediating effects of PNS on the relationship between P-O Fit and employee attitudes (job involvement, affective OC, normative OC and continuous OC).	7) Does PNS mediate the relationship between P-O Fit and employees' attitudes?	<p><i>Hypothesis 7a: PNS mediates the relationship between P-O Fit and Job Involvement.</i></p> <p><i>Hypothesis 7b1: PNS mediates the relationship between P-O Fit and Affective Organizational Commitment.</i></p> <p><i>Hypothesis 7b2: PNS mediates the relationship between P-O Fit and Normative</i></p>	Path Analysis Using PLS-SEM

		<p><i>Organizational Commitment.</i></p> <p><i>Hypothesis 7b3: PNS mediates the relationship between P-O Fit and Continuous Organizational Commitment.</i></p>	
<p>3. To examine the mediating effects of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationship between P-O Fit and employee outcomes (in-role performance and OCB).</p>	<p>8) Do employee attitudes mediate the relationship between P-O Fit and employees' outcomes?</p>	<p><i>Hypothesis 8a: Job Involvement mediates the relationship between P-O Fit and In-role Performance.</i></p> <p><i>Hypothesis 8b: Job Involvement mediates the relationship between P-O Fit and OCB.</i></p> <p><i>Hypothesis 8c1: Affective Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.</i></p> <p><i>Hypothesis 8c2: Normative Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.</i></p> <p><i>Hypothesis 8c3: Continuous Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.</i></p> <p><i>Hypothesis 8d1: Affective Organizational Commitment mediates the relationship between P-O Fit and OCB.</i></p> <p><i>Hypothesis 8d2: Normative Organizational Commitment mediates the relationship</i></p>	<p>Path Analysis Using PLS-SEM</p>

		<p><i>between P-O Fit and OCB.</i></p> <p><i>Hypothesis 8d3: Continuous Organizational Commitment mediates the relationship between P-O Fit and OCB.</i></p>	
<p>4. To examine the mediating effects of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationships between PNS and employee outcomes (in-role performance and OCB).</p>	<p>9) Do employee attitudes mediate the relationship between PNS and employees' outcomes?</p>	<p><i>Hypothesis 9a: Job Involvement mediates the relationship between PNS and In-role Performance.</i></p> <p><i>Hypothesis 9b: Job Involvement mediates the relationship between PNS and OCB.</i></p> <p><i>Hypothesis 9c1: Affective Organizational Commitment mediates the relationship between PNS and In-role Performance.</i></p> <p><i>Hypothesis 9c2: Normative Organizational Commitment mediates the relationship between PNS and In-role Performance.</i></p> <p><i>Hypothesis 9c3: Continuous Organizational Commitment mediates the relationship between PNS and In-role Performance.</i></p> <p><i>Hypothesis 9d1: Affective Organizational Commitment mediates the relationship between PNS and OCB.</i></p> <p><i>Hypothesis 9d2: Normative Organizational Commitment mediates the relationship</i></p>	<p>Path Analysis Using PLS-SEM</p>

		<p><i>between PNS and OCB.</i></p> <p><i>Hypothesis 9d3: Continuous Organizational Commitment mediates the relationship between PNS and OCB.</i></p>	
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1.8 STRUCTURE OF THE THESIS

This thesis consists of five chapters and the content of each chapter is briefly described below:

Chapter One – In this chapter, an introduction to the topic and research background are discussed. The significance of the research is also presented, including the research objectives, research questions, and methodology.

Chapter Two – In this section, the overview of P-O Fit, theories concerning the relationship between P-O Fit and employee outcomes (in-role performance and OCB) are further discussed.

This chapter also presents past major studies related to the relationship of P-O Fit and employee outcomes. Apart from that, it also discusses several concepts which include PNS and employee attitudes (job involvement and organizational commitment). Furthermore, this chapter demonstrates how the concepts are related to both P-O Fit and employee outcomes relationships. At the end of this section, the study hypotheses are developed and presented after related literatures have been reviewed in each respective section.

Chapter Three – In this chapter, the methodology is outlined to collect and analyse the data to further explore the developed hypotheses. The aim of this chapter is to link the conceptual framework of this study with the empirical results presented in the following chapters. The chapter is organized into several sections of methodology listed as follows: research paradigm, research design, data collection

method, research sampling, data collection procedures, and analysis technique. Moreover, the procedures adopted to assess the reliability and validity of the research instruments are further outlined in the last section of this chapter.

Chapter Four – In this chapter, the results from the descriptive analysis obtained from the questionnaire items are presented. Furthermore, the general picture of the demographic profile of the survey respondents is provided in this section.

Next, the measurement model analysis is discussed, together with the assessment of construct reliability, convergent validity, and discriminant. Moreover, the assessment of structural models and mediation analysis is reported. Finally, the results for all the hypotheses are presented.

Chapter Five – In this final section, this chapter provides an overall discussion on the findings of the study and the practical and theoretical implications. Finally, the limitations of the current study and the directions for further research are provided.

CHAPTER 2

LITERATURE REVIEW

2.1 CHAPTER OVERVIEW

This chapter aims to shed a light on employees' reactions to P-O Fit and demonstrates how such practices may influence employee outcomes. First, an overview of the concept of P-O Fit will be provided, followed by a presentation of the major theories dominating the literature on the relationship between P-O Fit and employee outcomes, namely the social identity theory and the social determination theory. Finally, previous studies that have examined the relationship between P-O Fit, PNS, employee attitudes on job involvement and organizational commitment, and employee outcomes of in-role performance and OCB are discussed. Finally, the hypotheses of this study will be developed after the related literatures are reviewed in each respective section.

2.2 P-O FIT AND EMPLOYEE OUTCOMES

2.2.1 Person-Organization Fit (P-O Fit)

According to Bright (2008), P-O Fit is one of the most widely studied topics in the field of organizational behaviour and general management. The focus of the current study is on P-O Fit; however, it should be noted that there are other types of fit which come under the general classification of Person-Environment (P-E) fit. P-E fit refers

to the degree of compatibility or congruence between an employee and his work environment (Kristof-Brown, Zimmerman, & Johnson, 2005). The research on the match between employees and their work environments has attracted the attention of many scholars and researchers (Kristof-Brown et al., 2005; Newton & Jimmieson, 2009; Piasentin & Chapman, 2006).

As a result, researchers started to distinguish specific types of fit sheltered under the umbrella of P-E fit. The types of fit include individual's compatibility with the organization (P-O Fit), job (P-J fit), work group (P-G fit), and supervisor (P-S fit). According to past research, P-J fit is defined as the judgments of compatibility between employees' skills and the demands of the job (Cable & Judge, 1996; Lauver & Kristof-Brown, 2001). Meanwhile, P-G fit tends to occur when there exists a compatibility between individuals and their work groups (Kristof, 1996). The next type of fit is P-S fit, which revolves around the compatibility of individuals with their supervisors or the relationship between employee and their managers. Out of all types of fit, P-O Fit is the most common and frequently studied by researchers (Hoffman & Woehr, 2006) and is viewed to be the most vital due to its ability in maintaining a flexible and committed workforce (Jung & Takeuchi, 2013; Tak, 2011). Moreover, Tak (2011) further argues that if employees not satisfied with their job or supervisor, it is possible for them to get away from current job or supervisor by changing jobs within the organization. However, if the employees fail to have a good fit with the organization, they are more likely to search for employment elsewhere, which will definitely result in the loss of a potentially skilled and experienced employee.

According to Bretz and Judge (1994), P-O Fit has been discussed from various general perspectives and definitions, thus it is considered as a subject of much confusion (Kristof, 1996). In the general sense, most researchers broadly define P-O Fit as “the compatibility between individuals and organizations” (Kristof, 1996, p. 3). More specifically, Kristof (1996) describes P-O Fit as ‘the compatibility between people and organizations that occurs when: (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both” (p. 4) . Meanwhile, Chatman (1991) refers to P-O Fit as “the congruence between patterns of organizational values and patterns of individual values, defined here as what an individual values in an organization, such as being team-oriented or innovative” (p. 459). Similarly, Bright (2007) provides a considerably similar definition of P-O Fit by describing it as “the congruence between the characteristics of individuals (i.e., goals, skills and values) and the characteristics of organizations (i.e., goals, values, resources and culture)” (p. 363).

According to Kristof (1996), there are two main types of P-O Fit, namely supplementary fit and complementary fit. The *supplementary fit* occurs when an individual possesses characteristics that are similar to other individuals in an organization (Kristof, 1996), or it can be achieved when both the individual and the organization share similar perspectives (Kristof-Brown et al., 2005). On the other hand, the *complementary fit* occurs when an individual’ characteristics add something missing to the organization (Piasentin & Chapman, 2006). Moreover, complementary fit was refined into two forms by Kristof (1996), namely needs-supplies fit and demands-abilities fit. In the context of *needs-supplies fit*,

P-O Fit tends to occur when an individual's needs are successfully fulfilled or satisfied by an organization or, in other words, when an individual's needs are met by organizational supplies. In contrast, the *demands-abilities fit* perspective believes that fit is achieved when an individual's abilities managed to meet organizational demands or, in other words, when organizational needs are satisfied by an individual's skills (Kristof, 1996). Therefore, complementary fit can be achieved when an individual's characteristics fill a gap in the organization or vice versa for the purpose of complementing and supporting each other (Kristof-Brown et al., 2005). Therefore, among all the definition of 'fit' discussed above, the current study considers the extent of congruence between employee and organizational values in achieving desirable employee outcomes to be more equivalent to 'supplementary fit'.

Moreover, the conceptualization of P-O Fit has been argued and debated, thus leading to misinterpretation of the real meaning of the concept (Kristof, 1996). Moreover, there is a lack of understanding of the essential characteristics needed to assess P-O Fit. Hence, it is necessary to look at various criteria of P-O Fit which include goal congruence (Vancouver & Schmitt, 1991), value congruence (Boxx, Odom, & Dunn, 1991; Judge & Cable, 1997; Cable & DeRue, 2002; Verquer, Beehr, & Wagner, 2003; Westerman & Cyr, 2004) and personality congruence (Westerman & Cyr, 2004). In relation to this, inconsistent results regarding P-O Fit and criteria are believed to exist. However, Piasentin and Chapman (2006) established that the majority of the empirical studies conducted actually concentrated on values congruence as the most established practice of measuring fit. This can be further supported based on the report from a meta-analysis study which proves that 78% of

the studies were related to P-O Fit based on the assessment of values congruence. The value dimensions of congruence had demonstrated stronger relationships with all three outcomes compared to other dimensions of fit (Verquer et al., 2003). Hence, this study will further explore the literature on values congruence.

The determination of values congruence starts with the overview of values itself. Generally, values can be defined as an “enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence” (Rokeach, 1973, p. 5). Meanwhile, a simple definition of values states it as a standard of desirability, in which people evaluate aspects or certain actions and make choices between the options in life (Lyons, Duxbury, & Higgins, 2006; Warr, 2008). Hence, it can be said that values are a vital aspect that can be compared directly and meaningfully in both individuals and organizations (Judge & Cable, 1997) as well as considered to have a strong role in guiding attitudes, judgements, and behaviours (Chatman, 1989, 1991). In relation to this, there is an increasing sensitivity of the role of values that can alert the shifting values in the organization, particularly in the fields of business and public administration (Ali & Amirshahi, 2002; Lyons et al., 2006) as well as for educational purposes both domestically and internationally (Levin, 2006; Moosmayer, 2012). Values are different from attitudes because they act as antecedents to attitudes (Moosmayer, 2012) and are highly related to managerial satisfaction and decision (Ali & Amirshahi, 2002; Warr, 2008). Values need to be clearly investigated (Warr, 2008) because values are posited to have a significant

effect on the job outcome for different studies; however, they are rarely taken into consideration. Moreover, values are acquired informally through the processes of socialization which include interaction with friends, family, and colleagues (Alas, Ennulo, & Törnpuu, 2006) and considered to be relatively stable (Warr, 2008). Accordingly, the current study conceptualizes values congruence in order to determine the P-O Fit.

The current study operationalizes P-O Fit as values congruence between employees and the organization based on certain factors. First, this particular type of operationalization has been found to be the most consistent and effective predictor of employee outcomes in previous studies (Boxx et al., 1991; O'Reilly, Chatman, & Caldwell, 1991; Verquer et al., 2003; Westerman & Cyr, 2004). Second, values are considered as fundamental and relatively enduring, especially in terms of their effect on behaviour and attitudes (O'Reilly et al., 1991) as well as the components of organizational culture that guide employees' behaviours (Schein, 1992). Third, employee values and organizational values can be directly compared, thus eliminating most of the issues related to inaccurate measurement and ensures mutual relevance of characteristics between employee and organization. Finally, values are able to predict a variety of individual attitudes and behaviours (Verquer et al., 2003; Gregory, Harris, Armenakis, & Shook, 2009; Hoffman, Bynum, Piccolo, & Sutton, 2011) and are important in decision making (Chen, Lee, & Yeh, 2008).

Moreover, several studies have supported the importance of compatibility between the employees' values and organizations' values (Kristof, 1996; Valentine, Godkin,

& Lucero, 2002; Siegall & McDonald, 2004; Edwards & Cable, 2009), whereby values congruence has been widely accepted values as the defining operationalization of P-O Fit (Kristof-Brown et al., 2005). In addition, employees are usually satisfied with their jobs, identified with the organization, and sought to maintain the employment relationship when they hold values similar to the values of their employing organization (Adkins, Ravlin, & Meglino, 1996; Kristof, 1996; Verquer et al., 2003; Westerman & Cyr, 2004; Kristof-Brown et al., 2005). The corresponding outcomes of value congruence are definitely relevant to employees as well as the organizations. Furthermore, all the established outcomes are able to assist organizations in minimizing the cost of turnover and promoting extra-role related to positive employee attitudes (M. Podsakoff, MacKenzie, Lee, & P. Podsakoff, 2003; Riketta, 2005).

The aforementioned discussions have demonstrated different conceptualizations, dimensions, and characteristics of P-O Fit. It is important to note that inconsistency in dimensions and conceptualizations does not necessarily hinder the empirical study of the P-O Fit construct (Verquer et al., 2003). Overall, P-O Fit can be comprehensively described as the compatibility between employees and organizations which takes place when at least one entity provides the needs of the other or when similar fundamental characteristics are shared in the model. Therefore, it is clear that both supplementary and complementary perspectives are well incorporated into the definition.

P-O Fit is not only related to work outcomes or organizational success, but it can also be beneficial in terms of the positive atmosphere that can be created through reciprocal interaction in work environments, social environments, and the vocation leading to an increased organizational commitment from employees (Demir et al., 2015).

2.2.2 Theories Concerning the Relationship between P-O Fit and Employee Outcomes

Two theories have been established, namely the social identity theory and self-determination theory in order to better comprehend the relationship between P-O Fit, PNS, employee attitudes, and employee outcomes,. This study integrates the P-O Fit, Social Identity Theory and Self-Determination Theory literatures for the purpose of developing and testing theoretical models that can satisfy the values of employees with the organization values in terms of psychological needs for autonomy, relatedness, and competence as well as the relationships with their work attitudes and outcomes in the present study.

2.2.3 Social Identity Theory

In Social Identity Theory (SIT), one is classified into social categories on the basis of group membership, such as the employing organization, for the purpose of defining or locating themselves within society (Ashforth & Mael, 1989). Furthermore, in the perspective of value congruence, SIT argues that employees tend to feel recognized within an organization when their employer values their contributions to the function

of the organization, which is fundamental in predicting employee attitudes (Cable & Edwards, 2004). The recognition of their work within the organization will be able to fulfil employees' socio-emotional needs which can improve their esteem, approval, and affiliation (Shore & Shore, 1995). On top of that, these needs are vital because they are responsible for building the employees' social identity, which in turn provides them with feelings of belonging in the organization (Hayton, Carnabuci, & Eisenberger, 2012; Meyer & Allen, 1991).

In addition, employees strongly identify with the organization (Dutton, Dukerich, Harquail, 1994) when they are able to simply change their behaviour by merely thinking differently about their employing organization. In this context, the employees will experience cognitive dissonance and display negative job attitudes when their values are incongruent with the values of the employing organization (Cable & Edwards, 2004). In some cases, the matching values between employees and the organization may influence their attitudes and behaviours. The organization values may affect the types of rewards that the organization supplies (Schein, 1992), which is similar to how one's values modify his or her needs (Hogan, 1991).

According to Conway and Briner (2012), the SIT approach argues that people are likely to consider themselves and others as groups that are able to be distinguished in meaningful ways. For instance, employees should be inclined to perceive the organization they work for as a salient entity when interacting with representatives of other organizations or external customers because this distinction is able to provide them with a relevant behavioural guideline. In another case, a conception of the self and others as organizational members tend to be less informative when the same

individual interacts with co-workers within the organization, due to the fact that they share the same identity. The SIT perspective further proposes that an individual's identification with a group (in this case the organization) can provide a basis for attitudes and behaviours for the group (Conway & Briner, 2012; Ellemers, Gilder, & Haslam, 2004). Therefore, it can be concluded that the SIT perspective projects values congruence as a factor of psychological needs, work attitudes, and behaviours.

2.2.4 Self-Determination Theory

The current study introduces Self-Determination Theory (SDT) as an alternative of a theoretical framework that can explain the relationship between P-O Fit and employee outcomes. SDT is a positive psychological motivation theory in the premise of individuals actively seeking for opportunities to satisfy their basic psychological needs (Deci & Ryan, 2000; Greguras & Diefendorff, 2009). SDT is also known as motivational framework that postulates employees with fulfilled needs to culminate their psychological wellbeing (Deci & Ryan, 2008).

According to this theory, the degree of personal growth and development is dependent on the fulfilment of three basic psychological needs essential for optimal functioning, namely the need for autonomy, the need for competence, and the need for relatedness. Deci et al., (2001) further state that these needs are essential for on-going psychological growth, well-being, and integrity. SDT further describes that optimal functioning can only be achieved when the employees possess the needs for autonomy, competence, and relatedness (Deci et al., 2001). Specifically, the need for *autonomy* involves exercising control over one's own actions and behaviours that

allows them to have a sense of choice and not being controlled by external constituencies. Next, the need for *competence* is described as feeling effective and having mastery over one's work. Finally, the need for *relatedness* is defined as feeling connected and associated with others, in the sense that one is important to others (Kovjanic, Schuh, Jonas, Quaquebeke, & Dick, 2012). SDT further asserts that, the fulfilment of the three basic psychological needs within organizational settings will lead to high level of intrinsic motivation as well as the internalization of external values. Hence, this leads to positive work-related outcomes such as effective performance, positive attitudes and behaviours, and psychological adjustment and well-being (Gagne & Deci, 2005).

There is research evidences supporting the claim that P-O Fit influences the satisfaction of basic psychological needs and its related outcomes (Cable & Edwards, 2004; Greguras & Diefendorff, 2009; Yu, 2014). Cable and Edwards (2004) suggested that psychological need fulfilment which consists of the need for autonomy, competence, and relatedness as well as value congruence tends to play important roles in shaping employees' work attitudes. Moreover, both psychological need fulfilment and values congruence are equally predictive of attitudes across the work dimensions and outcomes. Greguras and Diefendorff (2009) also found that P-O Fit is positively related to basic psychological needs which will lead to improved job performance, higher level of organizational commitment, and better job satisfaction. In relation to this, it was indicated recently by Yu (2014) that both value congruence and need fulfilment represent two distinct types of fit that can work together to produce the important outcomes (Resick, Baltes, & Shantz, 2007).

Therefore, this study does not only differentiate the constructs of value congruence and need fulfilment, but also proposes how each of them work together to influence organizational attraction.

The gathered literature seem to argue that P-O Fit is one of the major types of fit that can help to satisfy basic employee needs in the organizational context by creating supportive work environments and influencing work design and task characteristics (Kovjanic et al., 2012; Marescaux, Winne, & Sels, 2013). Hence, P-O Fit is assumed to generate favourable work attitudes and behaviours as well as a higher level of well-being (Gagne & Deci, 2005; Kovjanic et al., 2012; Lynch, Plant, & Ryan, 2005; Marescaux et al., 2013). Apart from that, the employees who manage to fulfil these needs in the organization are assumed to flourish (Deci & Ryan, 2008).

In employing SDT into the organizational context, employees' work attitudes and performance will be affected (Broeck, Vansteenkiste, Witte, Soenens, & Lens, 2010; Greguras & Diefendorff, 2009; Sheldon, Turban, Brown, Barrick, & Judge, 2003; Vlachopoulos & Michailidou, 2006) once their needs for autonomy, competence, and relatedness are satisfied (Deci et al., 2001). For example, Deci and Ryan (2000) argued that the need for autonomy revolves around experiencing choice and feeling like the initiator of one's own actions. Furthermore, Broeck, Vansteenkiste, Witte, and Lens (2008) claimed these needs can be satisfied through the ability to make personal choices or to back up externally induced requests. Meanwhile, employees who feel like they are part of a team and free to express their work-related and personal troubles are found to fulfil the need for relatedness (Dysvik, Kuvaas, &

Gagné, 2013). In this context, this particular need seems to emphasize the importance of positive emotions and well-being at work (Lopez & Brennan, 2000).

The purpose of this study is to make use of the principles underlying SDT as a lens that could predict the effects of high performance HR practices on employee outcomes. Therefore, on the basis of self-determination theory, this study proposes that P-O Fit is positively related to desirable employee outcomes.

2.2.5 Linking P-O Fit and Employee Outcomes

The focus of this section is on the specific relationships between P-O Fit and employee outcomes related to in-role performance and OCB. In this section, a brief discussion of each outcome is provided based on the past studies examining the relationships with P-O Fit. Finally, an evaluation of these studies is presented at the end of this section.

2.2.5.1 In-role Performance

Numerous studies have distinguished between in-role performance and extra-role performance. In-role performance is defined as activities related to work behaviours which are prescribed based on employees' formal role requirements (Motowidlo, Borman, & Schmit, 1997; Wang, Law, & Chen, 2008) as well as the level of achievement of the assigned job (Williams & Anderson, 1991). Moreover, in-role performance is also known as task performance (Binnewies, Sonnentag, & Mojza, 2009) which refers to one's contribution towards organizational performance. On top

of that, it can also be defined as behaviour “that are recognized by the formal reward systems and are part of the requirements as described in job descriptions” (Williams & Anderson, 1991, p. 601). This definition is in agreement with Borman and Motowidlo (1993) who stated that it is compulsory job that contributes to the organization and operates directly (Diefendorff, Brown, Kamin, & Lord, 2002). For example, a lecturer is assigned with specific roles which include delivering lectures and tutorials, assessing students’ coursework, setting and marking examinations, and any prescribed tasks in their job description. In most context, tasks determined in job description function as an indicator of an employees’ talents, capabilities, and competence (Yun, Takeuchi, & Liu, 2007). Furthermore, this outcome is expected of employees because it is directly related to the production of goods or services to the organization. Finally, completing in-role tasks is often constrained by rules and environmental conditions of work requirements (Diefendorff et al., 2002)

2.2.5.2 Organizational Citizenship Behaviour (OCB)

The counterpart of in-role performance is the OCB (Hui, Law, & Chen, 1999). OCBs are often compared to contextual performance. Similar to OCB, this concept started to emerge in response to the realization that it is only necessary to look at specific prescribed job tasks and ignore other significant task related to the job that is not prescribed. OCB is defined as employee behaviour which is voluntarily based or, in other words, is not directly or not rewarded by the formal reward system (Konovsky & Pugh, 1994; Diefendorff et al., 2002) but is generally beneficial for organizational effectiveness (Borman & Motowidlo, 1997; Motowidlo, 2000). OCB shares a similar

definition with contextual performance because non-task related behaviour tends to contribute to the organizational performance by facilitating in-role performance (Borman & Motowidlo, 1993). Nowadays, it has become necessary for employees to go beyond the formally required tasks of the job description in order to remain competitive as a result of aggressive job market (Pfeffer, 1994).

The current study declares that OCB and contextual performance share their defining attributes, particularly voluntary behaviours other than the prescribed role and routine of the job which seems to contribute to the overall success of the organization. However, there are important differences between the two constructs. As stated by Organ (1997), OCB at some level probably encourage reward but it may be uncertain and undetermined. On the other hand, task activities for contextual performance are more likely to appear on a performance appraisal form, formally rewarded and favourable personality variables (Borman & Motowidlo, 1997). The differences between OCB and contextual performance are still present despite being very minor and easily neglected. As has been mentioned, the current study proposes OCB to be defined as an employee's voluntary behaviour which is not prescribed in the job description and not formally rewarded, but regarded to be beneficial for the productivity of the organization.

In addition, the practical importance of OCB revolves around its capability to improve organizational efficiency and effectiveness by contributing to the innovation and adaptability of the organization (Williams & Anderson, 1991). OCBs are widely viewed to be capable of contributing to an organization's overall performance (Netemeyer, Boles, Mckee, & McMurrian, 1997; M. Podsakoff, MacKenzie, Paine,

& Bachrach, 2000), which is further influenced by the perceptions and feelings of individuals about their jobs (Organ & Ryan, 1995; Penner, Midili, & Kegelmeyer, 1997). Moreover, OCBs are still beneficial for the employees (Van Scotter, Motowidlo, & Cross, 2000) and for the growth and profitability of the organization (Chughtai, 2008) even though OCB are not part of the prescribed tasks.

2.2.5.3 Studies Linking P-O Fit and Employee Outcomes (In-role Performance and OCB)

Fit to organization can be viewed as the compatibility between the unique qualities of the individual worker and those of the overall employing organization (Gregory, Albritton, & Osmonbekov, 2010). A study undertaken by Ng and Sarris (2009) found that an employee fit to an organization is positively correlated with the commitment towards an organization and their core task performance. Hence, it can be hypothesized that the higher the fit of an employee to an organization, the more an employee is embedded to their jobs and the more likely it is for them to go an extra mile in their duties and work activities. As a result, they will become more productive in terms of their work performance (Ng & Feldman, 2009).

The relationship between P-O Fit and job performance has been examined in many studies (Cable & DeRue, 2002; Kristof-Brown et al., 2005; Hoffman & Woehr, 2006; Arthur, Bell, Villado, & Doverspike, 2006; Schmitt, Oswald, Friede, Imus, & Merritt, 2008; Vilela, González, & Ferrín, 2008; Greguras & Diefendorff, 2009; Yaniv, Lavi, & Siti, 2010; Gregory, Albritton, & Osmonbekov, 2010; Kim, Aryee,

Loi, & Kim, 2013), whereby it was found that P-O Fit is positively related to in-role performance and OCB.

Cable and DeRue (2002) found that employees' perceptions of P-O Fit are related to citizenship behaviours. Kristof-Brown et al. (2005) conducted a study using meta-analysis reviews and found P-O Fit to have low correlations with task performance but moderate correlations with contextual performance. Furthermore, the presence of relationship between P-O Fit and job performance is accepted by Arthur et al. (2006) who found that P-O Fit is the predictor of job performance in their study. Moreover, Hoffman and Woehr (2006) argued that P-O Fit is related to task performance and OCB by proposing that the relationship between P-O Fit and task performance is actually greater than the relationship between P-O Fit and OCB.

Meanwhile, Vilela et al. (2008) found that P-O Fit has a positive effect on OCB among salespersons working in Spanish companies located in Spain. The results obtained also proved that there is a direct or indirect positive effect of OCB on the supervisor's evaluation related to the performance of the sales agent. Other than that, Schmitt et al. (2008) conducted a longitudinal study and found that P-O Fit is positively correlated to OCB. Hoffman and Woehr (2006) reported that the correlations of OCB is slightly larger than the correlations between fit and in-role performance.

Meanwhile, Greguras and Diefendorff (2009) examined the effect of P-O Fit on job performance in Singapore. Their study employed the longitudinal study by 3 time periods through employees-supervisor dyads samples. On top of that, Gregory et al.

(2010) found a positive relationship between P-O Fit and in-role performance, whereby the data was gathered using the quantitative method by conducting an online survey in the USA. In a study performed in the banking sector in Israel, Yaniv et al. (2010) managed to observe a significant positive correlation between P-O Fit and OCB. In a large manufacturing company in South Korea, Kim et al. (2013) found that P-O Fit was positively related to job performance and OCB.

Furthermore, a positive relationship between employee fit to organization and employee job performance was postulated in Zimbabwe's manufacturing sector (Chinomona et al., 2013). Recently, a study performed by Demir, Demir, and Nield (2015) involving 629 employees from 5-star hotels in Mugla region, Turkey indicated that P-O Fit has a significant and positive influence on job performance.

Table 2.1 below provides a summary of the meta-analysis and empirical studies on the relationship between P-O Fit and employee outcomes (in-role performance and OCB). On top of that, it briefly presents the name(s) of the author(s), the country in which each study was conducted, the research method, samples size/response rate, and the obtained findings.

Table 2.1: Previous studies on the relationships between P-O Fit and employee outcomes (in-role performance and OCB)

Author(s)/ year	Country	Sector/ organization	Research method	Sample size/response rate	Findings
(Cable & DeRue, 2002)	United States of America	Public & private companies	Quantitative – survey – longitudinal	187 managers	P-O Fit perceptions are related to citizenship behaviours.
(Kristof-Brown et al., 2005)		-	Review-meta analytic	110 studies with 450 effect sizes were included in the P-O Fit meta-analyses	In the context of measures of performance, P-O Fit has low correlations with the overall job performance (.07) and task performance (.13), but moderate correlations with contextual performance (.27).
(Hoffman & Woehr, 2006)		-	Quantitative – review-meta analytic	24 studies with overall sample size of 14,652	P-O Fit is related to task performance and OCB. The relationship between P-O Fit and task performance is actually greater than the relationship between P-O Fit and OCB.
(Arthur et al., 2006)			Meta-analytic procedure		Meta-analytic procedures are used to estimate the true criterion-related validity. Result: P-O Fit's relations with job performance and turnover are partially mediated by work attitudes.
(Vilela et al., 2008)	Spain	Spanish companies	Quantitative - survey	122 salesperson–supervisor dyads from 35 firms / 50.8%	P-O Fit is confirmed to have a positive effect on OCB due to the effect it has on the salesperson's job satisfaction.

Author(s)/ year	Country	Sector/ organization	Research method	Sample size/response rate	Findings
(Schmitt et al., 2008)	United States of America		Quantitative-survey-longitudinal	Time 1: 1234 students; (47%) Time 2: 1044 (40%) Time 3: 904 (34%)	P-O Fit is positively correlated with subsequent satisfaction, together with subsequent behavioural outcomes; specifically, a negative correlation with turnover intent and a positive correlation with performance.
(Greguras & Diefendorff, 2009)	Singapore	A variety of industries (services, manufacturing, etc.)	Quantitative – survey Longitudinal – 3 time periods	164 full time employees + supervisors' rating 51.57%	P-O Fit has a significant indirect effect on job performance (through competence need satisfaction).
(Gregory et al., 2010)	United States of America	Public university	Quantitative – online survey	87 usable responses (yielding a 75% response rate).	P-O Fit is positively related to in-role performance. Correlation results show a positive relationship between P–O fit and in-role performance ($r = .615$, $p < .01$)
(Yaniv et al., 2010)	Israel	Banking	Quantitative - survey	130 respondents	A significant positive correlation between P-O Fit and OCB.
(Kim et al., 2013)	South Korea	Large manufacturing company	Quantitative - survey	320 (65% response rate)	P–O fit is positively related to (a) job satisfaction, (b) organizational commitment, (c) job performance, and (d) OCBO.

Author(s)/ year	Country	Sector/ organization	Research method	Sample size/response rate	Findings
(Chinomona et al., 2013)	Zimbabwe	Manufacturing Sector	Quantitative - survey	452 respondents	The results revealed that employee fit to organization positively influences employees' job performance.
(Demir et al., 2015)	Turkey	Hotels	Quantitative - survey	629 employees 69.2%/ 	P-O Fit has a significant and positive influence on job performance, organizational identification, and intention to remain, but has a significant and negative influence on production deviance behaviour.

In summary, all the studies presented in Table 2.1 tend to suggest that P-O Fit is positively related to in-role performance and OCB. Hence, this study proposes the following hypotheses based on the meta-analysis and empirical studies on the relationship between P-O Fit and employee outcomes (in-role performance and OCB):

Hypothesis 1a: P-O Fit is positively related to In-role Performance

Hypothesis 1b: P-O Fit is positively related to OCB

2.3 THE INFLUENCE OF PNS AND EMPLOYEE ATTITUDES ON THE RELATIONSHIP BETWEEN P-O FIT AND EMPLOYEE OUTCOMES

The previous section has shown that P-O Fit is positively related to employee outcomes. However, the mechanisms that seem to influence P-O Fit to affect employee attitudes and outcomes still require more research. The aim of the current study is to provide further enlightenment on the concept of PNS and employee attitudes (job involvement and organizational commitment) as well as to demonstrate how these variables can possibly play their role in the relationship between P-O Fit and employee outcomes.

2.3.1 P-O Fit and PNS and Employee Outcomes

2.3.1.1 Psychological Need Satisfaction (PNS)

Needs are defined as the essential nutrients for survival, growth, and integrity of the individual (Ryan, Sheldon, Kasser, & Deci, 1996), both physiologically and psychologically. This particular definition of needs does not lead to the assessment of need strength, but instead to the assessment of need satisfaction. In relation to this, if satisfaction is empirically shown to be associated with people's growth and health, it will be considered a need. The need satisfaction concept is derived from Self-Determination Theory (SDT) demonstrates the basic psychological needs essential for individuals to actually develop their fullest optimal potential and function (Deci et al., 2001). In addition, SDT asserts that there are three basic psychological needs, namely autonomy, competence, and relatedness. The function of the psychological needs is to promote wellbeing (Ryan & Deci, 2000) and is crucial for individuals to actualize their potential and to flourish (Sheldon, Elliot, Kim, & Kasser, 2001). These benefits can only be achieved by employees who have fulfilled their needs for autonomy, competence, and relatedness (Sheldon et al., 2001; Deci & Ryan, 2008).

First, the need for autonomy satisfaction is defined as a desire to act with a sense of freedom, choice, and volition, or more specifically, the need for an individual to be the creator of one's actions and to feel psychologically free from the control and expectations of others (Deci & Ryan, 2000). In this context, autonomous individuals are able to exercise choice in their activities and to willingly participate based on their own expectations instead of others. Therefore, it contributes to one's psychological freedom. On the other hand, job autonomy is defined as "the degree to which the job provided substantial freedom, independence and discretion to the individual in scheduling their work and determining the procedures to be used in

carrying it out” (Hackman & Oldham, 1976, p. 258). Hence, in this study, autonomy is referred as psychological freedom and choice that characterizes the conceptualization of autonomy provided by Social Determination Theory. For instance, the employees may be willing to follow the instructions given at work because they feel that there exists a meaningful reason to do so; hence, they will still fulfil the need for autonomy even though they have to follow the instruction of others (Broeck et al., 2010).

Second, the need for competence satisfaction is represented by the desire to feel capable, to be a master of the environment, and to achieve the desired outcomes (Deci & Ryan, 2000). In this case, the need for competence satisfaction is well-known to revolve around the tendency to explore and manipulate the environment as well as to engage in challenging tasks to further test and extend one’s skills. The employees who manage to satisfy the competence need may be able to adapt to complex and changing environments, whereas those who fail to meet the need will continue to lack motivation (Broeck et al., 2010; Deci & Ryan, 2000). The need for competence is necessary when it involves a variety of job tasks that require direction, selectivity, difficulty, and persistence in completing.

Third, the need for relatedness satisfaction is conceptualized as the sensitivity to feel connected to others. This can be further described when the employees become a member of a group, thus having significant attachments to others (Baumeister & Leary, 1995; Deci & Ryan, 2000). Moreover, the need for relatedness can also be fulfilled if individuals display a sense of unity and maintain close relationship with others (Wright, Burt, & Strongman, 2006). Employees who have become a part of a

team and are free to express their personal enjoyment and concern will be more likely to satisfy their need for relatedness in comparison to those who are lonely , with a lack of social support (Baard, Deci, & Ryan, 2004).

There has been a considerable demand for research on PNS because they are vital in the organizational context. On top of that, numerous studies have confirmed the positive and negative consequences of psychological needs (Deci & Ryan, 2000). For instance, need satisfaction has been shown to be positively related to employees' work, particularly in terms of job satisfaction, involvement, commitment, intrinsic motivation, performance, and general wellbeing. Need satisfaction is contrast to the needs associated with burnout, loneliness, depression, and attitudes which are closely related to self-esteem (Baard et al., 2004; Broeck et al., 2010; Greguras & Diefendorff, 2009). These results are reliable because they have been discovered across a wider area of professional levels, sectors, and cultures (Deci et al., 2001).

2.3.1.2 Studies Linking P-O Fit and PNS

Evidently, a study conducted by Greguras and Diefendorff (2009) found that P-O Fit is positively related to the three types of satisfaction, namely autonomy need satisfaction, competence need satisfaction, and relatedness need satisfaction. Their study was based on longitudinal study and the data collected across three times of periods indicated that employees who perceived their values, tend to fit better with their organizations, thus producing higher level of all three PNS. Therefore, the current study proposes the following hypothesis:

Hypothesis 2: P-O Fit is positively related to PNS.

2.3.1.3 Studies Linking PNS and Employee Outcomes (In-role performance and OCB)

According to SDT, individuals who satisfy their needs for competence will be intrinsically motivated, thus leading to optimal performance (Deci & Ryan, 2000). Gagne and Deci (2005) further argued that the outcome from the satisfaction of the three basic psychological needs will enhance employees' intrinsic motivation which will further predict the outcomes of effective performance and organizational citizenship behaviors. Meanwhile, Blais and Brière (1992) asserted that when subordinates learn to perceive their manager as more autonomy-supportive, greater job satisfaction and better psychological well-being can be achieved. This study is convinced that the positive outcomes from employees feelings seem to project greater satisfaction of their intrinsic needs. In addition, Deci et al. (2001) assessed the three PNS (autonomy, competence, and relatedness) and managed to find direct positive relations between the degree of need satisfaction and work engagement as well as the well-being of the job.

In a study conducted on full-time employees in Singapore, Greguras and Diefendorff (2009) found that competence need satisfaction is positively related to job performance. Similarly, Baard et al. (2004) also observed the relations between these needs and employees' performance evaluations. Individuals with greater need satisfaction on the job tend to be rated by their managers as performing better.

Moreover, relatedness need satisfaction is highly related to performance evaluation ratings. In summary, PNS has been observed to be positively related to job performance, either partially or fully. The aforementioned rationale leads to the hypotheses listed below:

Hypothesis 3a: PNS is positively related to In-role Performance.

Hypothesis 3b: PNS is positively related to OCB.

2.3.2 P-O Fit, Employee Attitudes and Employee Outcomes

2.3.2.1 Job Involvement

Recently, the determinants of job involvement have gained considerable research attention (De Cuyper et al., 2010; Jayawardana, O'Donnell, & Jayakody, 2013; Zhang, 2013). However, there is still room to further extend the knowledge on job involvement despite numerous studies conducted on the construct, particularly in view of the conceptualizations. The concept of job involvement has been conceptualized and measured inconsistently (Brown, 1996). Therefore, it is highly recommended to have a better understanding of it. Generally, the clear meaning of the concepts help to clarify the relative impact of the job content on the feelings of involvement (Elloy, Everett, & Flynn, 1991). Consequently, the construct will not be misinterpreted, thus avoiding any possibility of obtaining invalid results.

It starts with the complexity of the term job involvement that is associated with numerous type of definitions (Hallberg & Schaufeli, 2006). Most of the studies have

their own way of interpreting job involvement; for example, Lodahl and Kejner (1965) first introduced job involvement by defining it as the degree to which a person is psychologically identified with his work. Furthermore, Kanungo (1982) highlighted the differences between job involvement and work involvement based on the argument that job involvement is a belief that exists as a commitment to one's current job and not for the whole work in general. The distinctions have been made clear between both of the concepts, whereby the purpose of a current job is to satisfy individual's current needs while work is regarded as the centrality in an individual's life. To Paullay, Alliger, and Stone-Romero (1994), job involvement is believed to separate and exclude their present work setting. For example, a teacher may carry out the daily tasks required as a teacher (e.g., teaching and evaluating students), but he or she may not be involved in any other activities in the school or office. However, Blau (1985) and Lawler and Hall (1970) interpreted job involvement differently, by proposing that it involves only one aspect which refers to the degree to which an individual perceives total work situation to be central to their identity (Atwater & Carmeli, 2009; Keller, 1997).

Later, the confused terminology used interchangeably of the label engagement and involvement in the literature (Avery, McKay & Wilson, 2007; Cohen, 2006; Kanungo, 1982; Maslach & Leiter, 2005). Nevertheless, the distinction of both concepts is very clear, each having specific trademarks. The main characteristic of job engagement revolves around the presence of energy and content (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002) and it is described as the opposite of energy drain and work dissatisfaction. Moreover, engagement is assumed to be

developed as a fuel motivation that can inspire positive emotions towards the organization (Schaufeli & Bakker, 2004; Schaufeli, Taris, & van Rhenen, 2008). However, the term involvement that was summed up in an extensive meta-analysis by Brown (1996) appears to be unaffected by any mental or physical ill-health and obviously not related to energy. Brown further concludes that a job-involved person is someone who possess the following characteristics: (a) finds their job motivating and challenging, (b) is committed to the specific job and to the organization, thus making them less inclined to consider leaving their position, and (c) engages more closely in professional relationships, especially with the supervisors (Hallberg & Schaufeli, 2006).

The concept of job involvement is presented by Kanungo (1982) based on the clearest and most precise conceptualization of the construct (Brown & Leigh, 1996). The present study understands and perceives job involvement as the level of employee's engagement and enthusiasm in performing their prescribed tasks, unrelated with any health issues, that commits to the work itself and not to the organization. To some extent, it is considered to be similar to organizational commitment because both seem to be concerned with employees' feeling of recognition at work. However, according to all the definitions previously reviewed, it is clearly understood that job involvement concerns the current or latest job of the employee (Brown, 1996), whilst organizational commitment refers to the willingness of an employee to be a part of the organization in the future (Islam, Khan, Ahmad, & Ahmed, 2012). Hence, it is possible for an employee to be highly involved in his or her job, but not committed to the organisation (Blau & Boal, 1987). Moreover, past

studies consider it as a primary factor of organizational effectiveness (Pfeffer, 1994) and individual motivation (Van Scotter, 2000).

Job involvement has received substantial attention due to its role in generating positive organizational outcomes such as employee commitment at work (Kuhnel, Sonnentag, & Westman, 2009; Scrima, Lorito, Parry, & Falgares, 2013), individual motivation (Van Scotter, 2000), personality (Wille, Hofmans, Feys, & Fruyt, 2014) and performance (Diefendorff et al., 2002; Rotenberry & Moberg, 2007; Mohsan et al., 2011; Jayawardana et al., 2013). Considerable amount of research has investigated the antecedents of job involvement (Brown, 1996), but the focus was on employees working in business and industry instead of the education work settings.

Blau (1987) found that individuals with high degree of fit between themselves and their work environments tend to be highly involved in their job. This longitudinal study conducted on a sample of registered nurses from a large urban hospital indicated that job involvement and organizational commitment can be operationalized as distinct constructs, and the proposed person-environment fit model is considered useful in predicting job involvement, but not organizational commitment. Moreover, another study conducted by Nyambegera, Daniels, and Sparrow (2001) asserted that P-O Fit predicts job involvement in Kenya. The study was conducted in the manufacturing and processing sector in Kenya through a survey questionnaire. According to the study, it is a form of expectation to exhibit high job involvement when being surrounded by people who believe the importance of being harmonised with their environment. With the empirical findings discussed in this section, this study proposes the following hypothesis:

Hypothesis 4a: P-O Fit is positively related to Job Involvement

2.3.2.2 Organizational Commitment

The concept of organizational commitment is important in the field of organizational studies, thus has attracted considerable attention among researchers for many years (Morrow, 2011). Meanwhile, commitment has been recognized as a multidimensional construct (Meyer & Herscovitch, 2001) known as the organizational commitment. Moreover, commitment in the workplace can be interpreted in several ways such as commitment to an organization, job, profession, supervisor, and co-workers.

The primary distinction on work commitment in the literature is between commitment to the job (typically referred to as job involvement) and commitment to the organization (Randall & Cote, 1991). Nevertheless, job involvement is described as an individual's level of psychological identification with the specific job assigned to them despite the empirical interrelation between the two work attitudes (Kanungo, 1982). On the other hand, organizational commitment refers to the psychological attachment felt by an employee towards an organization (Meyer & Herscovitch, 2001). In general, commitment has been defined as a state of an obliging force which requires the individual to be bound to his own actions and honour the commitment, even when expected conditions are difficult to fulfil (Brown, 1996).

Organizational commitment is generally viewed as the level of attachment felt by an employee towards the employing organization (Bartlett, 2001). Previously work

conducted by Meyer & Allen (1991, p. 67) defines organizational commitment as ‘a psychological state that characterizes the employee’s relationship with the organisation and has implications for the decision to continue or discontinue membership in the organisation’. Another study by Judge and Kammeyer-Mueller (2012, p. 349) described organizational commitment as ‘an individual’s psychological bond with the organization, as represented by an affective attachment to the organization, internalization of its values and goals, and a behavioural desire to put forth effort to support it’.

The increasing scale of change in organizations has caused managers to constantly look for ways to generate organizational commitment, which is able to produce many advantages and improve work attitudes such as performance, absenteeism, and turnover intentions (Yousef, 2001). Riketta (2002) further argued that organizational commitment is an attitude that influences employee behaviour which is very beneficial to the organization.

Organizational commitment has been conceptualized into three components, namely affective, normative, and continuance (Meyer & Allen, 1991). According to their model, the first one, *affective organizational commitment* (AOC), refers to the degree of one’s involvement with the employing organization, which reflects the emotional attachment to the organization. Moreover, AOC has been the most widely studied base of commitment because it is considered as the best predictor of work criteria (e.g. job performance and withdrawal) related to other commitments (Ng & Feldman, 2011). Second, *continuance organizational commitment* (COC) reflects employees’ perceptions of costs to leave the organization, which occurs when a

person is truly committed to an organization due to the fear of losing the desired investments and limited job alternatives (Groff, 2012). Third, *normative organizational commitment* (NOC) is the less studied commitment compared to the other commitments. NOC is described as individual commitment to remain with the organization due to the feeling of obligation (Allen & Meyer, 1996). These three forms of organizational commitment are widely seen as three different constructs (Meyer, Stanley, & Parfyonova, 2012).

The findings of previous studies suggest that overall organizational commitment and its components seem to provide desirable effects on employee's behaviours and work outcomes (e.g. Chughtai & Zafar, 2006; Pare & Tremblay, 2007; Vilela et al., 2008; Khan, Ziauddin, Jam, & Ramay, 2010; George & Sabapathy, 2011). On top of that, commitment has been found to be positively related to many factors, including employee job performance (Chughtai & Zafar, 2006; Khan et al., 2010), personality and traits (Ibrahim & Perez, 2014; Pearson & Chong, 2011), job satisfaction (Vilela et al., 2008), work motivation (George & Sabapathy, 2011), organizational justice (Ibrahim & Perez, 2014), and OCB (Liu & Cohen, 2010). Apart from that, it was also found to be negatively related to employee turnover intentions (Chughtai & Zafar, 2006; Pare & Tremblay, 2007).

In the context of the relationship between P-O Fit and organizational commitment, it was revealed that employees who recognized high fit between their personal values and those of their organization's tend to possess higher level of organizational commitment. Specifically, the employee is more likely to be affectively committed when they perceive that their organization is concerned about their welfare. On a

similar account, the employee is more likely to score high on continuance commitment when the emphasis is on obedience to authority and bottom-line issues (Finegan, 2000). Hence, this research suggests that the organizations should be concerned about how their employees perceived the values of their organization based on the extent that affective, normative, and continuance commitment are able to predict other behaviours of importance to organizations.

Numerous studies support that P-O Fit is a highly influential variable in an organization and that it seems to have a remarkable positive relationship with the variables such as organizational identification (Cable & DeRue, 2002), work behaviour (Yaniv & Farkas, 2005), turn over, job satisfaction, and others. Importantly, the strength of the fit is highly dependent on the extent to which employees subscribe themselves to the organization values. In other words, employees who strongly adhere to these values will believe that their behaviours and attitudes appropriateness are stronger than those who adhere less to those values (Kell & Motowidlo, 2012).

Yaniv and Farkas (2005) explored a unique aspect of P-O Fit and concluded that P-O Fit has a significant positive effect on employees' perceptions of brand values as to the values declared by the management. This ultimately affects the customers' perception of brand values in a positive way. The proposed model of Coldwell, Billsberry, Van Meurs, & Marsh (2008) suggested that the employees with compatible ethical values to those of their employer's are known to fit, which then generate positive attitudes and behaviours in employees.

Previous studies that examined the relationship between P-O Fit and organizational commitment (Finegan, 2000; Cable & DeRue, 2002; Verquer et al., 2003; Westerman & Cyr, 2004; Silverthorne, 2004; Huang, Cheng, & Chou, 2005; Arthur et al., 2006; Behery, 2009; Greguras & Diefendorff, 2009; Iplik & Yalcin, 2011; Nicol, Rounding, & MacIntyre, 2011; Leung & Chaturvedi, 2011; Jung & Takeuchi, 2013; Maden & Kabasakal, 2013; Takeuchi & Takeuchi, 2013; Kazemi, 2014) are shown in Table 2.2 below.

Table 2.2: Previous studies on the relationships between P-O Fit and organizational commitment

Author(s)/ year	Country	Participant/Sector/ organization	Research method	Sample size Response rate	Findings
(Finegan, 2000)	United States of America	Large petrochemical company	Quantitative - survey	121 / 40% response rate	P-O Fit influences the organizational commitment of the employees.
(Cable & DeRue, 2002)	United States of America	Public & Private companies	Quantitative – survey – longitudinal	187 managers	P-O Fit is positively significant to ensure the decision remains.
(Verquer et al., 2003)	United States of America	-	Meta-analytic review	21 studies involving 18,776 participants altogether	P-O Fit is positively related to organizational commitment. Values congruence is the most used fit dimension.
(Silverthorne, 2004)	Taiwan	Various organizations	Quantitative - survey	120 employees	P-O Fit has a relationship with organizational commitment.
(Westerman & Cyr, 2004)	United States of America	Sales Positions Employees from 6 different organizations	Quantitative - survey	105/ 64% response rate	Values congruence is directly and positively related to employee commitment.
(Huang et al., 2005)	Taiwan	Various large scale companies	Quantitative – survey – cross-sectional data	180 participants,	Person-organization values fit can predict organizational commitment.

Author(s)/ year	Country	Participant/Sector/ organization	Research method	Sample size Response rate	Findings
(Arthur et al., 2006)	-	-	Meta-analytics study	-	P-O Fit relationship with job performance and turnover are partially mediated by organizational commitment.
(Vilela et al., 2008)	Spain	Spanish companies	Quantitative - survey	122 salesperson–supervisor dyads from 35 firms / 50.8%	P-O Fit is a good predictor of job performance.
(Behery, 2009)	UAE	Large companies	Quantitative – survey - longitudinal	960 participants / 68.5%	P-O Fit is found to be significant and positively correlated with affective commitment.
(Greguras & Diefendorff, 2009)	Singapore	Full time working employees / min 30hrs per week	Quantitative – survey Longitudinal – 3 time periods	164 full time employees + supervisors' rating 51.57% Employees-SV dyads	P-O Fit has a significant indirect effect on effective commitment through autonomy need satisfaction.
(Nicol et al., 2011)	Canada	Military Institutions	Quantitative - survey	170 participants	P-O Fit is positively correlated with affective commitment and normative commitment. No relation with scores on continuance commitment.

Author(s)/ year	Country	Participant/Sector/ organization	Research method	Sample size Response rate	Findings
(Iplik & Yalcin, 2011)	Turkey	Hotels	Questionnaire - survey	299 hotel managers, (52.8 %)	P-O Fit is positively related to organizational commitment.
(Leung & Chaturvedi, 2011)	Singapore	High-tech firms	Questionnaire - survey	237 / 29% response	P-O Fit is related to organizational commitment.
(Saleem, Adnan, & Ambreen, 2011)	Rawalpindi and Islamabad, India	Universities	Quantitative - survey	315	P-O Fit has a positive relationship with organizational commitment.
(Jung & Takeuchi, 2013)	Japan and South Korea	Private firms	Quantitative – survey – cross-sectional	138 Japanese & 144 Korean	P-O Fit is significantly correlated with organizational commitment in South Korea but not in Japan.
(Takeuchi & Takeuchi, 2013)	Japan	Healthcare corporations	Quantitative – survey	1052 sets out of 1371	P-O Fit is related to organizational commitment.
(Kim et al., 2013)	South Korea	A manufacturing company	Quantitative - survey	496 / 65% response rate.	P–O fit is positively related to (a) job satisfaction, (b) organizational commitment, (c) job performance, and (d) OCBO

Author(s)/ year	Country	Participant/Sector/ organization	Research method	Sample size Response rate	Findings
(Maden & Kabasakal, 2014)	Istanbul	Banking	Quantitative - survey	213 respondents	There is a positive relationship between employees' value fit with their organization's and their organizational commitment.
(Kazemi, 2014)	Iran	Iran Northeast Gas Transfer Company	Quantitative - survey	412 respondents	P-O Fit is perceived to have a positive influence on employees' organizational commitment

A survey was conducted by Finegan (2000) on a large petrochemical company which agrees that P-O Fit can predict organizational commitment. Cable and DeRue (2002) found that was a positive relationship of P-O Fit and the decision of the employees remain with their organizations. In addition, a meta-analysis reviewed by Verquer et al. (2003) also supports the relationship between P-O Fit and organizational commitment. The reviews were conducted on 18,776 participants, and it was revealed that the individuals who matched their organization values, cultures, and goals were reported to be highly committed to their organization.

Similarly, Silverthorne (2004) established the same result that P-O Fit shares a relationship with organizational commitment in Taiwan. It was argued that the higher the fit between the employees and the organization, the better the relationship with organizational commitment. On top of that, the study also found that supportive culture produces the highest level of employees' organizational commitment, while bureaucracies contribute the lowest level of organizational commitment. In addition, the research indicates that P-O Fit is an important variable within organizations in non-western countries. Furthermore, Westerman and Cyr (2004) found that sharing the same values with their organizations directly and positively relates to the employee's commitment.

Likewise, Huang et al. (2005) also proved that person-organization values fit is able to predict organizational commitment. A meta-analysis conducted by Kristof-Brown et al. (2005) strongly confirmed that P-O Fit is significantly linked to organizational commitment. In fact, the authors further concluded that attitudes towards various aspects of the environment are highly related to the corresponding type of fit, while

organizational commitment is strongly influenced by P-O Fit. Meanwhile, another review by Arthur et al. (2006) established that P-O Fit is the predictor of organizational commitment.

Vilela et al. (2008) discovered that when a salesperson perceives that there is a strong similarity between their values and the values of their organization, they will experience a higher level of organizational commitment towards the organization. Next, Behery (2009) and Greguras and Diefendorff (2009) revealed that P-O Fit is significant and positively correlated with affective organizational commitment. These studies were conducted in different countries, but they appeared to share similar results, those who fit well with the organization are expected to be more committed with the organization.

A study conducted in military institutions by Nicol et al. (2011) found that P-O Fit is positively correlated with affective and normative commitment, but no relation scores are found between P-O Fit and continuance commitment. In Turkey, Iplik and Yalcin (2011) proved that P-O Fit is positively related to organizational commitment. Leung and Chaturvedi (2011) conducted a study in Singapore and also found that P-O Fit is related to organizational commitment. In a study conducted in the service industry and public universities by Saleem, Adnan, and Ambreen (2011), they discovered that P-O Fit has a positive relationship with organizational commitment. It was further suggested that higher education institutions in Pakistan should be able to attract and retain academic managers whose personal values match with the organizational values. Hence, it is believed that a high level of P-O Fit will be helpful in creating and maintaining a conducive environment to promote better commitment

among employees, which will ultimately lead to enhanced effectiveness of these organizations.

Moreover, Jung and Takeuchi (2013) conducted a study on a sample which comprised of Japanese and South Korean employees. In their study, it was found that P-O Fit significantly correlated with organizational commitment in South Korea but not in Japan. In another study conducted in the same year, Takeuchi and Takeuchi (2013) found that P-O Fit is related to organizational commitment in Japan's Healthcare Industry. In the same context, Kim et al. (2013) further claimed that P-O Fit is positively related to organizational commitment in a large manufacturing company situated in South Korea. Meanwhile, a different study conducted in the banking sector by Maden and Kabasakal (2013) discovered the presence of a positive relationship between employee – organization values fit and the employee's organizational commitment. Kazemi (2014) further supported the relationship and found that perceived P-O Fit has a positive influence on employees' organizational commitment.

The following hypotheses are proposed based on the meta-analysis reviews and empirical findings discussed in this section:

Hypothesis 4b1: P-O Fit is positively related to Affective Organizational Commitment.

Hypothesis 4b2: P-O Fit is positively related to Normative Organizational Commitment.

Hypothesis 4b3: P-O Fit is positively related to Continuous Organizational Commitment.

2.3.2.3 Studies Linking Job Involvement and Employee Outcomes (In-role Performance and OCB)

A weak relationship between job involvement and in-role performance was found in the existing literature, hence, an in-depth investigation of the relationship is necessary (Islam, Khan, et al., 2012). The relationships between job involvement and employee outcomes, in-role performance, and OCBs have been examined in numerous studies (e.g. Diefendorff et al., 2002; Chiu & Tsai, 2006; Dimitriades, 2007; Chughtai, 2008; Mohsan et al., 2011; Biswas, 2011; Yen and Ok, 2011; Islam, Khan, Ahmad, & Ahmed, 2012; Ueda, 2012; Zhang, 2013) which support the existence of a positive relationship between job involvement and employee outcomes.

Diefendorff et al. (2002) found that job involvement has a positive and direct effect on task performance as well as OCB. Their study managed to obtain a response rate of 54.8% from the survey conducted on employed college students in the United States of America. In this case, employees who possess a high level of job involvement are more likely to reciprocate by increasing their in-role performance and extra-role performance. Meanwhile, Chu, Lee, Hsu, & Chen (2005) indicated that job involvement has significant effect on a total of 314 nurses' citizenship behaviours in Taiwan health care institutions.

On the other hand, a study by Cohen (2006) showed that Israeli teachers' job involvement is more strongly correlated with OCB-I compared to OCB-O. Apart from that, it was also revealed that the in-role performance of Jews is negatively affected by job involvement, as opposed to the positive effect on Arabs. The study was conducted in Northern Israel involving 569 school teachers. In another study, Chiu and Tsai (2006) used dyad samples of employees and their supervisors in hotel and restaurant services in Taiwan. The study found a positive correlation between job involvement and OCB. In the same context, a study conducted by Dimitriades (2007) demonstrates the important effects of job involvement on the frontline employees' OCB in Greek service organizations, in which a positive relationship between job involvement and employees' OCB was found.

Furthermore, Rotenberry and Moberg (2007) established that job involvement is able to predict in-role performance and both forms of OCB. In relation to this, employees' self-reported job involvement significantly predicted certain supervisor performance ratings above and beyond work centrality. In Pakistan, a study performed on 53 universities by Chughtai (2008) revealed that job involvement is positively correlated with in-role performance and OCB. Similarly, Yen and Ok (2011) asserts that job involvement is positively related to OCB based on a study conducted on 250 employees in the context of food service.

In their study, Mohsan et al. (2011) obtained a sample of 123 respondents which consist of managers and officers in the banking sector. The results showed that job involvement is positively associated with in-role performance and OCB. In addition, job involvement is proven to have a greater impact on OCB compared to in-role

performance. Apart from that, Biswas (2011) established that employee's job involvement is positively related to work performance. A study conducted at a private university by Ueda (2012) reported that job involvement has a significant positive effect on OCB. Moreover, Islam et al., (2012) revealed a weak relationship between job involvement and in-role performance. Zhang (2013) further examined that job involvement is positively related to all dimensions of OCB. The study was conducted on a large sample of 1110 of respondents and received a response rate of 63%.

Table 2.3 below provides a summary of the empirical studies on the link between job involvement and employee outcomes, which include in-role performance and OCB. It briefly presents the name(s) of the author(s), the country, the sector in which the study was conducted, the research method, sample size, and the findings of the studies.

Table 2.3: Previous studies on the relationships between job involvement and employee outcomes (in-role performance and OCB)

Author(s)/ year	Country	Participant/sector/ organization	Research method	Sample size/ response rate	Findings
(Diefendorff et al., 2002)	United States of America	Employed college students	Quantitative – survey – cross-sectional	130 / 54.8%	Job involvement has a positive and direct effect on task performance and OCB.
(Chu et al., 2005)	Taiwan	Nurses / a hospital	Quantitative – survey -	314	Job involvement has significant effects on nurses' OCB.
(Cohen, 2006)	Northern Israel	Teachers / Schools	Quantitative - survey	569 / 65%	In-role performance is negatively affected by job involvement among Jews, as opposed to being positively affected among Arabs.
(Chiu & Tsai, 2006)	Taiwan	Hotel and restaurant service employees	Quantitative – survey- cross-sectional	296 paired samples, resulting in 87.4% and 88.1% return rates for supervisors and employees, respectively.	There is a positive correlation between job involvement and OCB.
(Dimitriades, 2007)	Greek	Employees – Service industries	Quantitative – survey – cross-sectional	269 / 74%	A positive relationship between customer-oriented OCB.
(Rotenberry & Moberg, 2007)	United States of America	Employees – Health care company	Quantitative - survey	255 / 87.9%	Job involvement may positively influence work-related behaviours, especially individually directed citizenship behaviours (OCB-I).
(Chughtai, 2008)	Pakistan	Universities	Quantitative - survey	208 teachers	1. There is a significant positive correlation between job involvement and in- role performance.

Author(s)/ year	Country	Participant/sector/ organization	Research method	Sample size/ response rate	Findings
					2. There is a significant positive correlation between job involvement and OCB
(Yen & Ok, 2011)	United States of America	Food service	Quantitative - survey	Targeted 250 employees	Job involvement is positively related to OCB-interpersonal.
(Mohsan et al., 2011)	Punjab, Pakistan	Banking	Quantitative - survey	123 respondents (managers & officers) / 72%	1. Job Involvement is significantly and positively associated with OCB. 2. Job Involvement is significantly and positively associated with in-role job performance. 3. Job Involvement has a greater impact on OCB compared to in-role job performance.
(Biswas, 2011)	India	Manufacturing, service sector	Quantitative - survey	357 employees / 89.25%	Job involvement is positively related to job performance.
(Ueda, 2012)	Tokyo, Japan	A private university	Quantitative - surveys	132 respondents / 29%	Job involvement has a significant positive effect on the evaluation of certain OCB dimensions.
(Islam, Khan, et al., 2012)	Pakistan	Banking sector	Quantitative - survey	208 respondents / 83.2%	There is a positive and significant relationship between job involvement and in- role job performance.

Author(s)/ year	Country	Participant/sector/ organization	Research method	Sample size/ response rate	Findings
(Zhang, 2013)	Taiyuan, China	Employees in enterprise and participant of MBA programs	Quantitative - survey	1,110 / 63 %.	Job involvement is positively correlated with all OCB dimensions.

In summary, all the studies presented in Table 2.3 above seem to suggest that job involvement is positively related to in-role performance and OCB. The following hypotheses are proposed based on the previous empirical studies conducted on the relationship between job involvement and employee outcomes:

Hypothesis 5a: Job Involvement is positively related to In-role Performance.

Hypothesis 5b: Job Involvement is positively related to OCB.

2.3.2.4 Studies Linking Organizational Commitment and Employees Outcomes (In-role Performance and OCB)

It is noted that organizations tend to focus more on committed employees because they are expected to perform better, for their own benefit and for the organization (Conway & Briner, 2012). As asserted by Mowday, Porter, and Steers (1982, p. 27), those who are committed to the organization are “willing to give something of themselves in order to contribute to the organization's wellbeing”. There are several empirical evidence from past studies which confirms the relationship between organizational commitment and job performance (Kim, 2006; Vilela et al., 2008; Khan et al., 2010; Biswas, 2011; Islam et al., 2012; Suliman & Kathairi, 2013; Kazemi, 2014).

Table 2.4 below provides a summary of the empirical studies that link organizational commitment to employee outcomes such as in-role performance and OCB. It briefly

introduces the name(s) of the author(s), the country and the sector in which the study was conducted, the research method, sample size, and the findings obtained.

Table 2.4: Previous studies on the relationships between organizational commitment and employee outcomes (in-role performance and OCB)

Author(s)/ year	Country	Participant/Sector/ organization	Research method	Sample size / response rate	Findings
(Sangmook Kim, 2006)	Korea	Government agencies	Quantitative - survey	1,584 participants / 79.2%	There is a positive relationship between organizational commitment and OCB.
(Vilela et al., 2008)	Spain	Spanish companies	Quantitative - survey	122 salesperson–supervisor dyads from 35 firms / 50.8%	No significant relationship between organizational commitment & OCB.
(Biswas, 2011)	India	Manufacturing, service sector	Quantitative - survey	357 employees / 89.25%	Employees who display higher levels of commitment to his/her organization will also exhibit better in-role and extra-role job performance.
(Islam, Khan, et al., 2012)	Pakistan	Banking sector	Quantitative - survey	208 respondents / 83.2%	There is a positive and significant relationship between organisational commitment and in-role job performance.
(Suliman & Kathairi, 2013)	Abu Dhabi, UAE	Governmental organizations	Quantitative - survey	500 respondents / 83%	There is a significant relationship between organizational commitment and job performance.
(Kazemi, 2014)	Iran	Iran Northeast Gas	Quantitative -	412 respondents	The employees' organizational

Author(s)/ year	Country	Participant/Sector/ organization	Research method	Sample size / response rate	Findings
		Transfer Company	survey		commitment have a positive influence on his/her OCB.

A study conducted by Kim (2006) indicates the presence of a relationship between civil servant's organizational commitment and OCB in South Korea. The study was conducted on a large sample of 1,739 respondents which received a high response rate of 87%. Meanwhile in Spain, Vilela et al. (2008) utilized structural equation modeling and found the absence of a significant relationship between organizational commitment and OCB.

Moreover, Khan et al. (2010) investigated the impact of organizational commitment on job performance, whereby a positive relationship was found between the two variables. On top of that, normative commitment was found to have a more significant impact on work performance compared to the other two components of commitment. A study conducted by Biswas (2011) in the manufacturing service sector showed that employees who display a high level of commitment to his or her organization tend to exhibit better in-role and extra-role job performance.

Furthermore, Islam et al. (2012) conducted a study on a sample of employees from the banking sector, and a positive and significant relationship was discovered between organizational commitment and in-role performance. All the dimensions of organizational commitment, AOC, NOC, and COC demonstrated positive and significant results despite the slightly weak relationship found between organizational commitment and in-role performance. In public organizations, 500 samples of respondents demonstrated a significant relationship between organizational commitment and job performance (Suliman & Kathairi, 2013). A survey on 500 employees of the Iran Northeast Gas Transfer Company conducted by

Kazemi (2014) found that employees' organizational commitment appear to have a positive influence on their OCB.

All the above studies have proven that there is a positive relationship between organizational commitment and job performance, either to in-role performance or OCB. The following hypotheses are developed based on the above discussion:

Hypothesis 5c1: Affective Organizational Commitment is positively related to In-role Performance.

Hypothesis 5c2: Normative Organizational Commitment is positively related to In-role Performance.

Hypothesis 5c3: Continuous Organizational Commitment is positively related to In-role Performance.

Hypothesis 5d1: Affective Organizational Commitment is positively related to OCB.

Hypothesis 5d2: Normative Organizational Commitment is positively related to OCB.

Hypothesis 5d3: Continuous Organizational Commitment is positively related to OCB.

2.3.3 PNS and Employee's Work Attitudes

The basic logic of employment relationships revolves around the individual's acceptance of the job and their intention of keeping their jobs, primarily with the promise of reward. According to this perspective, employees' work attitudes should primarily reflect the extent to which their desires are able to be fulfilled based on the rewards of the job, such that the psychological needs of the employee are achieved (Cable & Edwards, 2004). A number of researchers have described the necessary fulfilment of the basic needs in various contexts which include education (Vallerand, Fortier, & Guay, 1997), sport (Reinboth, Duda, & Ntoumanis, 2004; Vlachopoulos & Michailidou, 2006), work organization (Deci et al., 2001; Greguras & Diefendorff, 2009), and behaviour (Gagne, 2003). All in all, need fulfilment will lead to enhanced motivation and reach a better aspects of life.

Nevertheless, evidence linking PNS to work attitudes is still limited. The number of studies that examine the relationship between PNS and involvement is also unsatisfying (Deci et al., 2001; Ilardi, Leone, Kasser, & Ryan, 1993; Vlachopoulos & Michailidou, 2006). A study conducted by Vlachopoulos and Michailidou (2006) at fitness centres managed to obtain positive relationships for all three psychological needs (autonomy, competence, and relatedness) with their participant's involvement. Moreover, Deci et al. (2001) supported that the satisfaction of intrinsic needs for competence, autonomy, and relatedness is able to predict the level of job involvement in the work environment. In a study conducted by Ilardi, Leone, Kasser, and Ryan (1993), factory workers who experienced greater satisfaction on the needs

for competence, autonomy, and relatedness at the workplace are observed to have a more positive job attitude, a higher self-esteem, and fewer symptoms of ill-being compared to their colleagues with a lower needs satisfaction.

In addition, PNS is also predicted to have an influence on organizational commitment. Greguras and Diefendorff (2009) found that autonomy need satisfaction is positively related to affective organizational commitment in Singapore. Furthermore, Broeck et al. (2010) have confirmed that all three PNSs are closely associated with organizational commitment. However, a study conducted by De Cuyper et al. (2010) found that only perceived autonomy is related to organizational commitment. Hence, the aforementioned rationale has led to the following hypotheses:

Hypothesis 6a: PNS is positively related to Job Involvement.

Hypothesis 6b1: PNS is positively related to Affective Organizational Commitment.

Hypothesis 6b2: PNS is positively related to Normative Organizational Commitment.

Hypothesis 6b3: PNS is positively related to Continuous Organizational Commitment.

2.3.4 The Mediating Role of PNS on the Relationship between P-O Fit and Employee Attitudes (Job Involvement and Organizational Commitment)

Arthur, Bell, Villado, and Doverspike (2006) noted that “Theoretically, the relation between fit and attitudes is predicated on the reasoning that when there is fit, the environment affords individuals the opportunity to fulfil their needs...Need fulfilment results in favourable attitudes, such as job satisfaction” (p. 787). A study conducted by Cable and Edwards (2004) indicates that need fulfilment is partially mediated by value congruence and employee attitudes. This seems to suggest that PNS (autonomy, competence, and relatedness) may mediate the relationship between P-O Fit and work attitudes.

This theoretical assumption remains largely untested except in a study performed by Greguras and Diefendorff (2009). In their study, a P-O Fit is proved to have several indirect effects on employee outcomes through PNS. Their study also found that autonomy need satisfaction mediates the relationship between P-O Fit and effective organizational commitment. Therefore, it is appropriate to test this model based on the following hypotheses:

Hypothesis 7a: PNS mediates the relationship between P-O Fit and Job Involvement.

Hypothesis 7b1: PNS mediates the relationship between P-O Fit and Affective Organizational Commitment.

Hypothesis 7b2: PNS mediates the relationship between P-O Fit and Normative Organizational Commitment.

Hypothesis 7b3: PNS mediates the relationship between P-O Fit and Continuous Organizational Commitment.

2.3.5 The Mediating Role of Employee Attitudes (Job Involvement and Organizational Commitment) on the Relationship between P-O Fit and Employee Outcomes (In-role Performance and OCB)

The remaining individuals in the organization who display a high level of congruence towards the organization is posited to produce more favourable work attitudes.

The current study posits that work attitudes mediate the demonstrated influence of P-O Fit on employee outcomes. In this case, employees whose values match those of the organization's are more likely to attribute positive motives to the practices and policies of their organization (Cable & DeRue, 2002). As a result, high P-O Fit employees perceive that their organization is extremely supportive of them. This expression functions as a sign of social exchange relationship with the organization.

Consistent with social exchange theory, employees who believe their values are similar to the values of their organization will feel obligated to reciprocate with behaviour and attitudes that are beneficial to the organization. Moreover, employees tend to decrease OCB in order to reciprocate the treatment received from their organization. A meta-analysis reviewed by Arthur et al. (2006) established P-O Fit as

a predictor of job performance (in-role performance and OCB). Their reviews further asserted that P-O Fit's relation to job performance is partially mediated by work attitudes. Hence, the current study proposes the following hypotheses based on the above discussion:

Hypothesis 8a: Job Involvement mediates the relationship between P-O Fit and In-role Performance.

Hypothesis 8b: Job Involvement mediates the relationship between P-O Fit and OCB.

Hypothesis 8c1: Affective Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.

Hypothesis 8c2: Normative Organizational Commitment mediates the relationship between P-O Fit and In-role performance.

Hypothesis 8c3: Continuous Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.

Hypothesis 8d1: Affective Organizational Commitment mediates the relationship between P-O Fit and OCB.

Hypothesis 8d2: Normative Organizational Commitment mediates the relationship between P-O Fit and OCB.

Hypothesis 8d3: Continuous Organizational Commitment mediates the relationship between P-O Fit and OCB.

2.3.6 The Mediating Role of Employee Attitudes (Job Involvement and Organizational Commitment) on the Relationship between PNS and Employee Outcomes (In-role Performance and OCB)

As articulated in the work of Organ (1990), social exchange theory suggests that one's relationship with an employer tend to provide a proximal cause for work behaviours and turnover intentions. In relation to this, PNS (autonomy, competence, and relatedness) may be a bad influence because it is capable of diminishing the quality of these relationships. Specifically, employees usually feel indebted by the needs satisfaction provided by the organization, thus feeling obligated to reciprocate (Cohen & Vigoda, 2000; Cohen, 1999). As a result, the change in employees' work attitudes (job involvement and organizational commitment) influences the performance of the employees are assumed to mediate the association between PNS and employees' outcomes. The current study failed to locate any evidence of this possibility. However, it is deemed appropriate to test this model which is aligned with social exchange theory based on the following hypotheses:

Hypothesis 9a: Job Involvement mediates the relationship between PNS and In-role Performance.

Hypothesis 9b: Job Involvement mediates the relationship between PNS and OCB.

Hypothesis 9c1: Affective Organizational Commitment mediates the relationship between PNS and In-role Performance.

Hypothesis 9c2: Normative Organizational Commitment mediates the relationship between PNS and In-role Performance.

Hypothesis 9c3: Continuous Organizational Commitment mediates the relationship between PNS and In-role Performance.

Hypothesis 9d1: Affective Organizational Commitment mediates the relationship between PNS and OCB.

Hypothesis 9d2: Normative Organizational Commitment mediates the relationship between PNS and OCB.

Hypothesis 9d3: Continuous Organizational Commitment mediates the relationship between PNS and OCB.

Figure 2.1: Hypothesized model

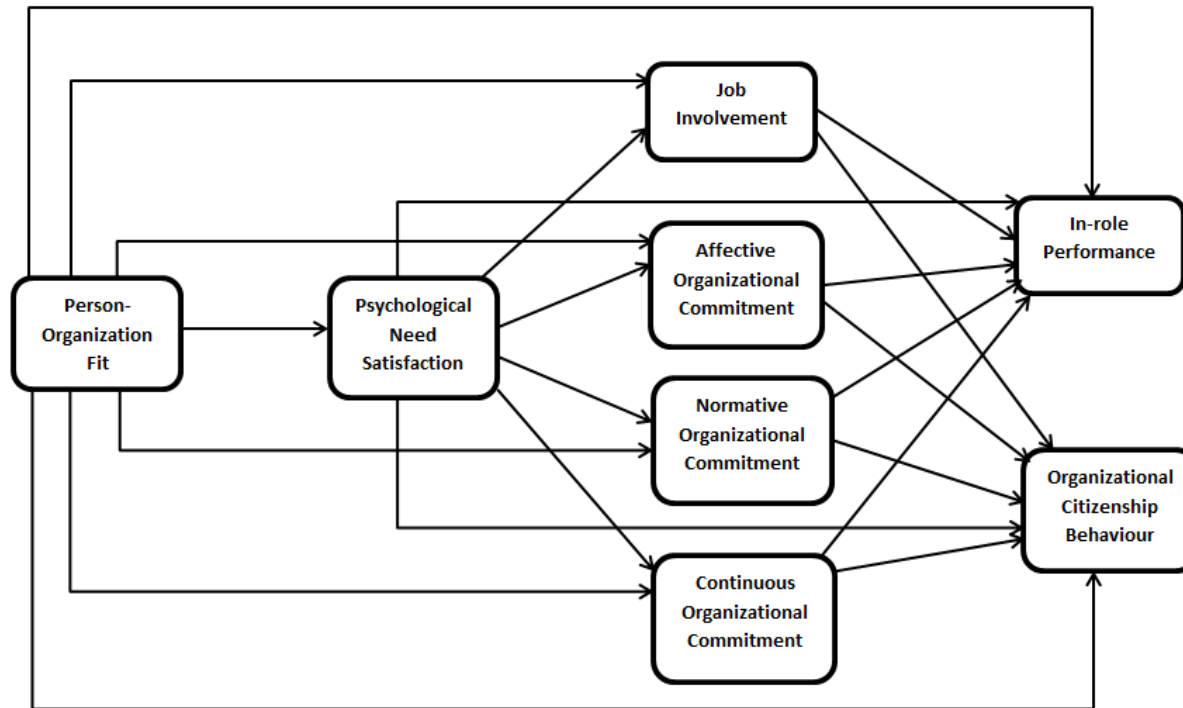


Table 2.5: Summary of research hypotheses

No	Hypothesis	Description
1	1a	P-O Fit is positively related to In-role Performance.
2	1b	P-O Fit is positively related to OCB.
3	2	P-O Fit is positively related to PNS.
4	3a	PNS is positively related to In-role Performance.
5	3b	PNS is positively related to OCB.
6	4a	P-O Fit is positively related to Job Involvement.
7	4b1	P-O Fit is positively related to Affective Organizational Commitment.
8	4b2	P-O Fit is positively related to Normative Organizational Commitment.
9	4b3	P-O Fit is positively related to Continuous Organizational Commitment.
10	5a	Job Involvement is positively related to In-role Performance.
11	5b	Job Involvement is positively related to OCB.
12	5c1	Affective Organizational Commitment is positively related to In-role Performance.
13	5c2	Normative Organizational Commitment is positively related to In-role Performance.
14	5c3	Continuous Organizational Commitment is positively related to In-role Performance.
15	5d1	Affective Organizational Commitment is positively related to OCB.
16	5d2	Normative Organizational Commitment is positively related to OCB.
17	5d3	Continuous Organizational Commitment is positively related to OCB.
18	6a	PNS is positively related to Job Involvement.
19	6b1	PNS is positively related to Affective Organizational Commitment.
20	6b2	PNS is positively related to Normative Organizational Commitment.
21	6b3	PNS is positively related to Continuous Organizational Commitment.
22	7a	PNS mediates the relationship between P-O Fit and Job Involvement.
23	7b1	PNS mediates the relationship between P-O Fit and Affective Organizational Commitment.
24	7b2	PNS mediates the relationship between P-O Fit and Normative Organizational Commitment
25	7b3	PNS mediates the relationship between P-O Fit and Continuous Organizational Commitment.
26	8a	Job Involvement mediates the relationship between P-O Fit and In-role Performance
27	8b	Job Involvement mediates the relationship between P-O Fit and OCB.
28	8c1	Affective Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.
29	8c2	Normative Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.
30	8c3	Continuous Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.
31	8d1	Affective Organizational Commitment mediates the relationship between P-O Fit and OCB.
32	8d2	Normative Organizational Commitment mediates the relationship between

		P-O Fit and OCB.
33	8d3	Continuous Organizational Commitment mediates the relationship between P-O Fit and OCB.
34	9a	Job Involvement mediates the relationship between PNS and In-role Performance.
35	9b	Job Involvement mediates the relationship between PNS and OCB.
36	9c1	Affective Organizational Commitment mediates the relationship between PNS and In-role Performance.
37	9c2	Normative Organizational Commitment mediates the relationship between PNS and In-role Performance.
38	9c3	Continuous Organizational Commitment mediates the relationship between PNS and In-role Performance.
39	9d1	Affective Organizational Commitment mediates the relationship between PNS and OCB.
40	9d2	Normative Organizational Commitment mediates the relationship between PNS and OCB.
41	9d3	Continuous Organizational Commitment mediates the relationship between PNS and OCB.

2.4 CHAPTER SUMMARY

This chapter has outlined a number of literature reviews on the concept of P-O Fit. Two theories were discussed related to the literature on the relationship between P-O Fit and employee outcomes, namely social identity theory and self-determination theory. Next, this chapter presented previous studies that are linked to P-O Fit and in-role performance and OCB. Overall, P-O Fit is suggested to be positively related to in-role performance and OCB. However, it is important to note that very few studies have been conducted in developing countries because most of these studies focused on developed countries. Hence, it is necessary to conduct more research on the effects of P-O Fit on the performance of employees in developing countries, which is in agreement with the aim of the current research which is to examine the effects of P-O Fit on employee outcomes in Malaysian universities.

This chapter further discussed various concepts which include the concept of PNS and employee attitudes (job involvement and organizational commitment), as well as demonstrated how they are related to P-O Fit and employee outcomes (in-role performance and OCB). Apart from that, various studies linking all the variables related in this study were also presented. The next chapter will focus on the methodological aspect and research design of this study.

CHAPTER 3

METHODOLOGICAL AND RESEARCH DESIGN

3.1 CHAPTER OVERVIEW

This chapter outlines the methodology applied in this study in order to collect and analyse the data for the purpose of exploring the hypotheses of this study. Moreover, the aim of this chapter is to link the conceptual framework developed for this research with the empirical results that will be presented in the following chapters. Finally, this chapter is organized around several main topics, namely the research paradigm, research design, research context, data collection method, research sampling, and data collection analysis.

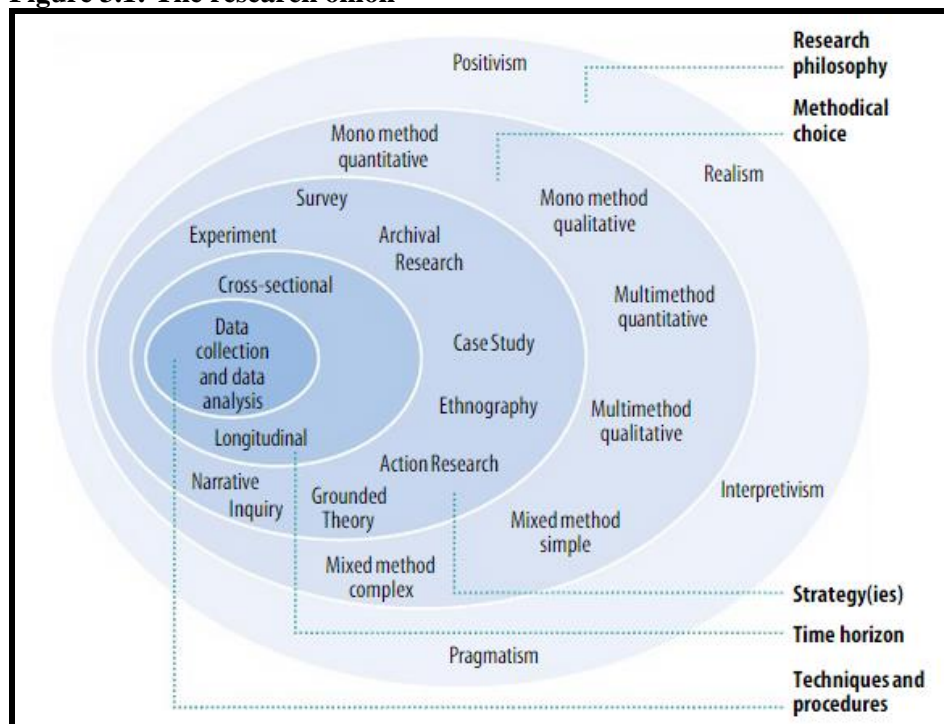
3.2 RESEARCH PARADIGM

A research paradigm is a practice of examining social phenomena that allows particular understandings of these phenomena to be obtained and further explained (Saunders, Lewis, & Thornhill, 2009). Apart from that, Denscombe (2010) argued that a research paradigm is mainly conducted in accordance with a particular philosophy and world-view, whereby those who are able to function within the research paradigm tend to share those views.

The current study refers to the metaphor of the research onion as presented in Figure 3.1, with the purpose of illustrating how the core of the research onion is related to

its outer layers. Furthermore, it describes the stages that must be covered when developing a research strategy. The research onion provides an effective progression that enables a research methodology to be designed. The research onion was further developed by Saunders, Lewis, and Thornhill (2007) in formulating an effective methodology that is necessary to conduct every stage.

Figure 3.1: The research onion



Source: Saunders, Lewis, and Thornhill (2012, p. 128)

According to Grix (2002), there are three main components of a research paradigm, starting with ontology, and followed by epistemology, and finally methodology positions. Ontology is described as the ‘science or study of being’ (Blaikie, 2003, p.8) and a theory of the nature of social entities (Bryman, 2008). Specifically, ontological assumptions are related to the nature of phenomena that needs to be investigated (Bahari, 2010). In this context, the main point of orientation in ontology

refers to the question of whether a social entity should be considered an objective entity (referred to as objectivism), or made up of the perceptions and actions of social actors (referred to as constructionism) (Bryman & Bell, 2007). Nevertheless, objectivism is chosen as the ontological position in the current study. Generally, objectivism states that social entities exist independently of social actors (Bryman, 2008) and is concerned with the assumption of the way the world operates based on one's perspective (Saunders et al., 2009).

In addition, the two approaches known as positivism and interpretivism (also called constructionism) are crucial in the process of gaining knowledge in the social sciences (Thomas, 2004). Epistemology comes from the Greek word ἐπιστήμη (epistêmê), which is the Greek term for knowledge. In simple terms, epistemology is the philosophy of knowledge or how we come to know (Trochim, 2006). Epistemology revolves around the question of what makes a knowledge acceptable in a discipline (Bryman & Bell, 2007).

The positivism paradigm is one of the alternative paradigms which has been extensively used and accepted in the field of management and organizational psychology (Kinjerski & Skrypnek, 2006). According to Kim (2003), positivism possesses a number of strengths. First, it revolves around one's attempts to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements (Bahari, 2010). In brief, it allows the understanding of how a change in one variable is able to cause change in another. Second, there is no influence of personal subjectivity on the production of knowledge, thus minimizing researchers' bias and values that can possibly

contaminate the research process. The researchers must be independent and its properties should be measured through objective methods (Bahari, 2010). Finally, this approach helps to produce knowledge that is externally valid and the findings obtained from this study can be generalized and applied in a more extensive situation. The positivism paradigm is deemed to be the most appropriate for the purpose of this study because it enables the purpose of this study to be achieved, which is to investigate the relationships among P-O Fit, PNS, employee work attitudes, and employee outcomes.

Basically, there are two methodological approaches, namely the quantitative and qualitative approach. Table 3.1 presents the differences between the two methodological approaches.

Table 3.1: Differences between quantitative and qualitative research

	Quantitative	Qualitative
Ontological orientation	Objectivism	Constructionism
Epistemological orientation	Natural science model, in particular, positivism	Interpretivism
Principle orientation	Deductive; testing of theory	Inductive; generation of theory
Data collection	Highly structured, large samples, measurement, surveys or other formulaic techniques	Small samples, in-depth investigations, direct, observational techniques

Source: Based on Bryman & Bell (2007) and Mark Saunders et al., (2009)

The present study chooses to employ the quantitative methodology. Bryman (2008) asserts that the quantitative methodology emphasizes on quantification in both data collection and analysis. Moreover, it is often practiced in major empirical studies conducted within the managerial and behavioural sciences (Baruch & Holtom, 2008).

The samples used in the quantitative method are much larger in size as compared to the qualitative method. Also, quantitative research allows the findings to be generalized, provided that the data are based on samples of sufficient size (Johnson & Onwuegbuzie, 2004). Quantitative research enables the testing and validating of available constructed theories to learn about the occurrence of the phenomena. It is also faster and less time consuming in the process for both data collection and analysis.

3.3 RESEARCH DESIGN

The aim of a research design is to elaborate on a framework that is developed for the purpose of data collection and analysis (Bryman, 2004). It is to decide on the integrated issues related to the purpose of the study, the study setting, type of investigation, time horizon, and other subjects related to collection procedures (Sekaran & Bougie, 2009). It is very important to have a research design that can ensure the accuracy, confidence, and generalizability of the results (Sekaran & Bougie, 2009).

Generally, two important factors must be taken into consideration, namely the choice between theory testing and theory building as well as the types of research questions (De Vaus, 2001). First, the choices are between deduction and induction in the relation between theory and research. Table 3.2 below presents a summary of the differences between the two approaches:

Table 3.2: Main differences between deductive and inductive approaches

Deductive emphasises	Inductive emphasises
<ul style="list-style-type: none">• Scientific principles• Moving from theory to data• The need to explain causal relationships between variables• The collection of quantitative data• The application of controls to ensure validity of data• The operationalization of concepts to ensure clarity of definition• A highly structured approach• Researcher independence of what is being researched• The necessity to select samples of sufficient size in order to generalise conclusions	<ul style="list-style-type: none">• Gaining an understanding of the meaning that humans attach to events• A close understanding of the research context• The collection of qualitative data• A more flexible structure to permit changes of research emphasis as the research progresses• A realisation that the researcher is part of the research process• Less concern with need to generalise

Source: Saunders, Lewis & Thornhill (2009, p. 127)

Deduction is a form of reasoning in which the conclusions are validly inferred from certain premises and have to be true given that the premises are also true (Malhotra & Birks, 2007). The deductive approach (which is also called a ‘top down’ approach) begins with a theory or a topic which is then narrowed down to specific hypotheses. Next, the data is collected to decide whether the hypotheses can be accepted or rejected (Bryman, 2004). A deductive approach also allows the hypotheses to be tested and the research findings to be generalized (Guba & Lincoln, 1994).

In contrast, *induction* is a form of reasoning which ‘involves the inference that an instance or repeated combination of events may be universally generalized’ (Malhotra & Birks, 2007, p.161). The inductive approach is a research approach that collects data and develops a theory from the analysis of the data (Saunders et al.,

2009). However, on the basis of a positivist paradigm, a deductive approach is deemed to be the most suitable approach.

The second factor of the research design that needs to be taken into consideration is the research type. In general, research designs can be divided into three types of research, namely exploratory, descriptive, and explanatory. *Exploratory research* is particularly suitable for understanding a research problem (Saunders et al., 2009) and at discovering ideas and insights (Churchill & Iacobucci, 2002). Exploratory research is appropriate when the research problems are unstructured and difficult to be understood (Ghauri & Gronhaug, 2002). There are several types of methods used in exploratory studies which include focus groups, analysis of selected cases, and experience survey.

Descriptive research is used to provide a precise profile of individuals, events, or situations (Saunders et al., 2009). The main concern is to identify the frequency of something or the relationships between variables which are guided by one or more specific hypotheses (Churchill & Iacobucci, 2002). Descriptive research is often employed when the research aims to describe the characteristics of certain groups, to estimate the proportion of people, specifically those who behave in a certain way, or to make specific predictions.

Explanatory research aims to determine the cause and effect of relationships (Churchill & Iacobucci, 2002). It is also known as causal research which is usually applied in field experiment or laboratory experiment due to its ability to determine the cause and effect.

With the above explanation of research design, the current research is classified as descriptive research. However, descriptive studies can be further classified into two types, namely longitudinal or cross-sectional. *Longitudinal studies* involves panels and samples of a population which are repeatedly measured (Malhotra & Birks, 2007). In contrast, cross-sectional studies contain the collection of information from a specified sample of population elements conducted merely once (Churchill & Iacobucci, 2002; Malhotra & Birks, 2007). The current study adopted the *cross-sectional studies* because the data is capable of representing the general population (Malhotra & Birks, 2007). Cross-sectional studies are also considered by a number of researchers to be the most important type of descriptive research (Churchill & Iacobucci, 2002). Finally, cross-sectional studies are not time consuming and involve minimum costs (Levin, 2006).

3.3.1 Data Collection – Survey Questionnaires

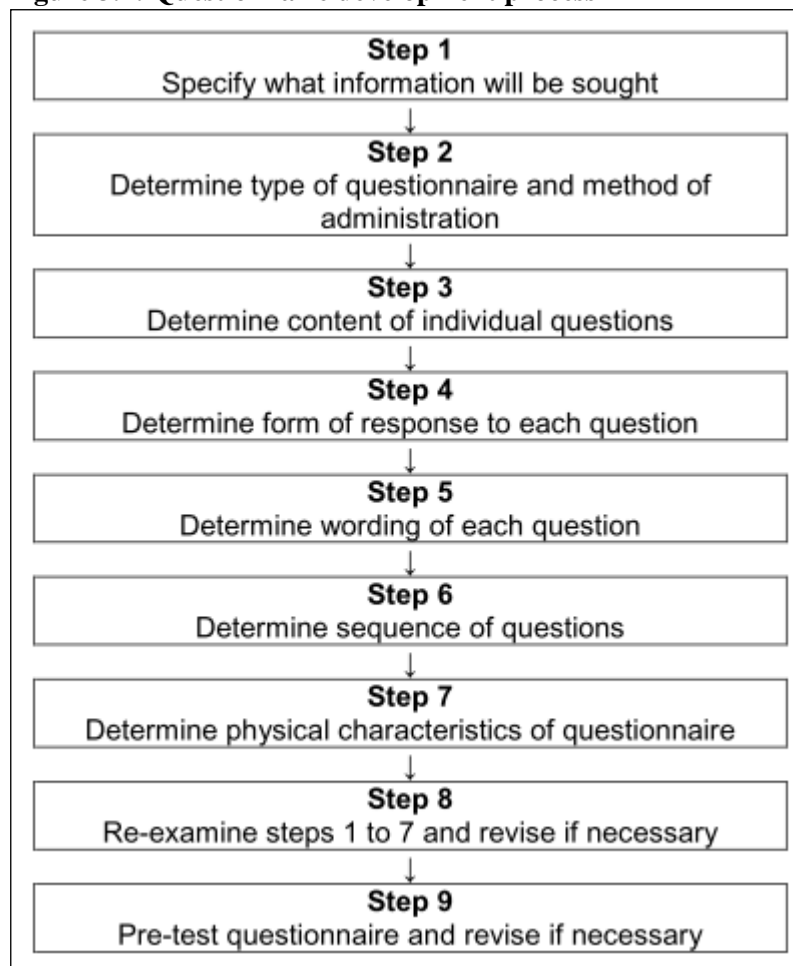
As mentioned in the previous section, the current study employed questionnaire surveys as the data collection tool. According to Baruch and Holtom (2008), questionnaires are the most common tool employed within the managerial and behavioral sciences research. Moreover, questionnaires are believed to assist in providing insight into the attitudes and perceptions of individuals (Baruch & Holtom, 2008), as a supplement to organizational practices and policies. Apart from that, questionnaires are often used to examine the relationships between variables, to explain the relationships, and to generate models of these relationships (Saunders et

al., 2009). The questionnaire development process is further discussed in the following subsection.

3.3.2 Questionnaire Development Process

In this section, the process of development recommended by Churchill and Iacobucci (2002) is presented. The procedures involved in constructing the questionnaire are described step by step as shown in Figure 3.2 below:

Figure 3.2: Questionnaire development process



Source: Churchill & Iacobucci (2002, p. 315)

Step 1: Specify Information Sought

In this study, the information to be included in the questionnaire is based on the hypothesized relationships documented in the conceptual framework. The measurement instrument is designed in order to obtain responses for each construct mentioned in the conceptual framework. A number of demographic questions are also developed and included in the early section of the questionnaire.

According to Podsakoff et al. (2003), having only one source of data might contribute to the major cause of common method variance. This problem can be solved by collecting the measures of the variables from different sources. This study, two sources of rating were employed, namely, an employee self-report and a supervisory report in order to evaluate in-role performance and OCB. The objectivity of self-report will be increased and another source of performance data can be obtained. However, it is a bit of a challenge in terms of identifying the variable (e.g., the supervisor's and subordinate's names) because it might reduce the willingness of respondents to participate due to the issue of anonymity or the loss of information when results from both sources fail to be obtained. In fact, multiple sources of ratings require more time, effort, and cost. However, all matters involved in getting multiple sources of ratings have been thoroughly considered.

Step 2: Type of Questionnaire and Method of Administration

The current study employed structured questionnaires for the collection of data for the research. Generally, questionnaires can be either self-administered or interviewer administered (Mitchell & Jolley, 2010). Self-administered questionnaires

are required to be filled out by the respondents themselves. In contrast, interviewer administered questionnaires are based on the respondent's responses which are recorded by the interviewer. This particular type of questionnaire is applied because it is quicker to administer, cheaper and more convenient for respondents (Bryman, 2004). Apart from that, it can also establish rapport to motivate the respondent. Paper based questionnaires are preferable, particularly once the organization is willing and able to assemble groups of employees to respond to the questionnaires (Sekaran & Bougie, 2009).

Step 3: Determine Content of Individual Questions

This step involves identifying what and how many questions should be included in the questionnaire (Churchill & Iacobucci, 2002). The main objective revolves around the content validity and reliability of the questionnaires. All the constructs studied were measured using the items that had been validated in previous research. The explanation of the operationalization related to the measurement of P-O Fit, PNS, employee attitudes, and employee outcomes are presented below:

P-O Fit refers to the '*compatibility between the values of an employee and those of the organization in which he or she works*'. P-O Fit can be evaluated using either direct or indirect measures (Kristof, 1996). There are two types of dimensions of fit, namely subjective (perceived) fit and objective (actual) fit. Subjective fit measures involve asking the respondents on how well they fit and believe that their own characteristics match with their employing organization's values (Hoffman & Woehr, 2006; Newton & Jimmieson, 2009). Contrastingly, objective fit is measured

by asking individuals to separately rate the individual's and the organization's characteristics through a comparison of the characteristics. These are quite different ways of measure and any dissimilar results in past research can easily be caused by the manner in which the fit was measured. Verquer et al. (2003) established results that measure direct-perceived fit which displayed the strongest relations with work attitudes. However, Piasentin and Chapman (2006) believed that the construct of subjective fit is hard to express and has yet to be exactly defined. Others claim that objective fit is real and the only fit that matters (Finegan, 2000; Edwards & Cable, 2009).

Meanwhile, the discussions about the different type of measurement remain unresolved in the literature. The meta analyses tend to suggest that subjective fit or perceived measurement is better explained (Verquer et al., 2003; Kristof-Brown et al., 2005;). On top of that, perceived measurement has been shown to influence the evaluation of job applicants (Cable & Judge, 1995). Subjective (or perceived) fit measures have been used in many studies for the purpose of assessing the fit or congruence between employees and their organization (Edwards & Cable, 2009; Yu, 2014).

The objective of the current study is to examine the relationship between P-O Fit values congruence, and employee attitudes and outcomes. The attitudes are subjective and it should relate more strongly to the congruence between employee and organizational values (Edwards & Cable, 2009). As a result, the perceived or subjective values congruence is emphasized in the present study.

The present study adapted the measures from Edwards and Cable (2009) known as the Work Values Survey (WVS) in order to assess the subjective values congruence. The WVS was developed using Schwartz's model of basic human values (Schwartz, 1992; Cable & Edwards, 2004; Edwards & Cable, 2009). The original WVS consists of all ten core values proposed by Schwartz (1992). However, Cable and Edwards (2004) combined achievement with hedonism and conformity with tradition, thus reducing the amount of the core values in the WVS to just eight. Next, each of the eight core values was adapted to measure items within the working environment (Cable & Edwards, 2004; Edwards & Cable, 2009). The eight core work values are listed as follows: (a) altruism, (b) relationships, (c) pay, (d) job security, (e) authority, (f) prestige, (g) variety, and (h) autonomy. The scales measuring values congruence were divided into two sections, namely employee values and perceived organizational values.

In the case of employee values, respondents indicated each of the eight WVS condition in the sense of 'How important is this to you?'. The respondents are required to assess the degree of their own work values for their employing organization. The participants were also asked the extent to which each value exists in themselves, using a 7 point Likert-type scale ranging from 1 (strongly unimportant) to 7 (strongly important). Meanwhile, in the context of perceived organizational values, the respondents are required to rate each item of WVS in terms of 'How important is this in your organization?'. For this particular question, the respondents are expected to perceive their own thoughts and assess their organization values. The total Cronbach's alpha for this measure was .91

Table 3.3 below shows several studies that adapted the scales from Cable and Edwards (2004) who reported the alphas value of .88 and .86 for personal values and organizational values, respectively.

Table 3.3: Studies that adapted the values congruence measures

Studies	Journal	Respondent/Field/ Country	Cronbach's alpha (α)
(Siegall & McDonald, 2004)	Personnel Review	Academic Staff – Public University – United States	.72
(Edwards & Cable, 2009)	Journal of Applied Psychology	Employees – large water treatment agencies – United States	Personal Values: (altruism: .80; relationships: .85; pay: .84; security: .90; authority: .85; prestige: .69; variety: .79; autonomy: .69) Organizational Values: (altruism: .85; relationships: .85; pay: .85; security: .92; authority: .85; prestige: .70; variety: .81; autonomy: .74)
(Yu, 2014)	Organizational Behavior and Human Decision Processes	Students – University – Asian economy	Individual values (Relationship = .82; Prestige = .74; security = .89; autonomy = .82) Organizational values (relationship = .92; prestige = .87; security = .93; autonomy = .91)

As argued by Siegall and McDonald (2004), the weightage of perceived values shared between employee and organization is regarded to be more important compared to how much a set of rules outlined for them. A measure based on a set of values derived from the university's mission statement was used, but the result obtained from the scale was unsatisfying. The subjective fit assessment focuses on how important the employee perceives is the congruence between their values and the organization's. In this study, the reported reliability alpha of the scale was .72.

Similarly, Amos and Weathington (2008) used two questions in measuring the existence of values congruence. The two questions describe to what extent each value exists in their organization and to what extent they think each value should exist in their organizations. The Seven Values of Excellence Scale by Peters and Waterman (1982) was adopted in this study through the calculation of the congruence by subtracting the degree to which participants believed a value should exist from the degree to which they felt a value existed. The reliability coefficient was recorded as .75.

Next, a study by Edwards and Cable (2009) fully adapted the scales of Work Values Survey (WVS; Cable & Edwards, 2004) that can be found in the Journal of Applied Psychology. The data used in this study was drawn from Cable and Edwards (2004) who conducted a study on employees in a wide range of job types and levels, particularly in four water treatment agencies in the United States. Their study reported the coefficient alphas for personal values as .80, .85, .84, .90, .85, .69, .79, and .69 for altruism, relationships, pay, security, authority, prestige, variety, and autonomy, respectively. On the other hand, the score for coefficient alphas for

organizational values are .85, .85, .85, .92, .85, .70 and .74 for altruism, relationships, pay, security, authority, prestige, variety and autonomy, respectively.

Recently, a study by Yu (2014) in *Organizational Behavior and Human Decision Processes* also adapted four of the scales of WVS developed by Cable and Edwards (2004). The four scale values, namely relationship, prestige, security, and autonomy were chosen because the person values and organization values were allowed to be measured on commensurate dimensions (Yu, 2014). Person values were measured based on the rate given by the respondents on WVS items according to their perceived importance (e.g. “How important are the following things to you?”) on a 7-point Likert scale ranging from 1 (not important at all) to 7 (extremely important). Organizational values were assessed by the respondents “How important do you think the following things are at your current company?” using the same response scale. The above measures are consistent with the values congruence research, in which the values are measured in terms of the importance of attributes for the person and organization (Ambrose, Arnaud, & Schminke, 2007; Amos and Weathington, 2008; Edwards & Cable, 2009; Lawrence & Lawrence, 2009; Siegall & McDonald, 2004; Yu, 2014).

The current study calculates values congruency using different score methods, in which the arithmetic difference between the perceived and preferred values for each of the commensurate value items is calculated as a fit score (Cable & Judge, 1996). All of the items were measured using a seven-point Likert scale ranging from 1 (strongly unimportant) to 7 (strongly important) as shown in Table 3.4.).

Table 3.4: Sample of questionnaire for values congruence

1= Strongly unimportant	2= Not important	3=somewhat important	4= neither important nor unimportant	5= important	6= very important	7= Strongly important										
Conditions			1. How important is this to you?				2. How important is this in your organization?									
1. Altruism <i>e.g making the world a better place</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7
2. Relationships <i>e.g forming relationships with co-workers</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. Pay <i>e.g. salary level</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7
4. Job Security <i>e.g being certain of keeping my job</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7
5. Authority <i>e.g a clear chain of command</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7
6. Prestige <i>e.g gaining respect</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7
7. Variety <i>e.g doing many different things on the job</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7
8. Autonomy <i>e.g self-determining the way my work is done</i>			1	2	3	4	5	6	7	1	2	3	4	5	6	7

PNS is described as a ‘*set of needs satisfaction that drives an individual to actualize their potential and flourish by satisfying their needs for autonomy, competence and relatedness*’. Deci et al. (2001) further argued that the needs satisfaction is derived from Self Determination Theory, which functions as the identification of the basic psychological needs that are essential for individuals to actually develop their fullest potential and function optimally.

In this study, the Basic Need Satisfaction (Deci et al., 2001) measurement which consists of 21 items was applied in order to assess the extent to which employees experience satisfaction of their three intrinsic needs, namely autonomy, competence,

and relatedness. There are 7 items for self-determination, 6 items for competency, and 8 items for relatedness. In a study conducted by Deci et al., (2001), the coefficient alphas were reported as .83 and .89 for Bulgarian and American, respectively. Likewise, all the items were measured on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

It is important to note that these measures have been used in various different context of studies which managed to show acceptable internal consistency (Wei, Shaffer, Young, & Zakalik, 2005; Kashdan, Julian, Merritt, & Uswatte, 2006; Vansteenkiste, Lens, Soenens, & Luyckx, 2006; Thøgersen-Ntoumani & Ntoumanis, 2007; Conroy & Douglas Coatsworth, 2007; Greguras & Diefendorff, 2009; Kashdan, Mishra, Breen, & Froh, 2009; Luyckx, Vansteenkiste, Goossens, & Duriez, 2009; Johnston & Finney, 2010; Ahmad, Vansteenkiste, & Soenens, 2012; Molix & Nichols, 2013; Dysvik, Kuvaas, & Gagné, 2013; Schiffrin et al., 2014; Sylvester et al., 2014).

Table 3.5 below presents several studies that adapted the scales of Basic Needs Satisfaction developed by Deci et al. (2001).

Table 3.5: Studies that adapted the PNS measures

Studies	Journal	Context / Field / Sample	Cronbach's Alpha
(Wei, Shaffer, Young, & Zakalik, 2005)	Journal of Counseling Psychology	Undergraduate students – at a large Midwestern University	Autonomy = .68 Competence = .75 Relatedness = .85 Total = .90
(Kashdan et al., 2006)	Behaviour Research and Therapy	Veterans – Medical Centre – New York	Autonomy = .61 Competence = .83 Relatedness = .69
(Vansteenkiste et al., 2006)	Motivation & Emotion	Chinese students who had temporarily moved to Belgium to study (i.e., sojourners) and Chinese students involved in the application procedure to study in Belgium (i.e., applicants)	Autonomy = .61 Competence = .66 Relatedness = .79 Total = .87
(Conroy & Coatsworth, 2007)	Psychology of Sport and Exercise	Youths - Sports	Autonomy = .84 Competence = .57 Relatedness = .83
(Thøgersen-Ntoumani & Ntoumanis, 2007)	Journal of Health Psychology	Aerobics Instructors - attending a national fitness congress in the West Midlands of the UK	Autonomy = .76 Competence = .60 Relatedness = .75
(Greguras & Diefendorff, 2009)	Journal of Applied Psychology	Employees – variety of industries and occupations (Service industry, government, financial, manufacturing industry, transportation, human services) – Singapore	Autonomy = .66 Competence = .67 Relatedness = .85
(Kashdan et al., 2009)	Journal of Personality	Undergraduate college students – Public Mid-Atlantic university	Autonomy = .81 Competence = .86 Relatedness = .90
(Johnston & Finney, 2010)	Contemporary Educational Psychology	Three independent samples of students	Autonomy (a = .61 to .81), Competence (a = .60 to .86), and Relatedness (a = .61 to .90).
(Ahmad et al., 2012)	Developmental Psychology	Adolescents – Schools - Jordan	Autonomy = .71 Competence = .72 Relatedness = .72
(Dysvik et al., 2013)	Journal of Applied Social Psychology	Employees – Service Organization – Norway	Autonomy = .67 Competence = .71 Relatedness = .86
(Molix & Nichols, 2013)	International Journal of Wellbeing	Residents – Urban Community – U.S city	Autonomy = .65 Competence = .73

			Relatedness = .82 Overall = .87
(Sylvester et al., 2014)	Psychology & Health	Community Adults – United States	Autonomy = .95 Competence = .96 Relatedness = .96
(Schiffrin et al., 2014)	Journal of Child and Family Studies	Students - University	Autonomy = .70 Competence = .65 Relatedness = .79

Wei et al. (2005) used these measures for the purpose of examining the satisfaction of three psychological needs, namely autonomy, competence, and relatedness with adult attachment and distress. The respondents participating in their study were undergraduate students from a large Midwestern University in the United States. A likert scale ranging from 1 (not true at all) to 7 (very true) was used to examine how well each psychological need is generally satisfied in their life. They reported the scores for coefficient alphas as .68, .75, and .85 for autonomy, competence, and relatedness, respectively.

In 2006, Kashdan et al. (2006) adapted the 21 items in their study for a sample of outpatient and four-week residential specialized in mental health treatment programs at the Veterans Affairs (VA) Medical Center in Buffalo, New York. The Cronbach's alphas were recorded as .61 for autonomy, .83 for competence, and .69 for relatedness. Another study by Vansteenkiste et al. (2006) also employed the same scale, on a sample of Chinese students who temporarily moved to Belgium to study as well as Chinese students involved in the application process to study in Belgium. In their study, Cronbach's alphas were respectively recorded as .61, .66, and .79 for autonomy, competence, and relatedness.

Similar studies in the context of sports, conducted by Conroy & Coatsworth (2007) and Thøgersen-Ntoumani and Ntoumanis (2007) also adapted the same scale of 21 items. In the study by Conroy and Coatsworth (2007), all the items for autonomy and relatedness and one of the items in competence are reverse-coding items. Their study reported the score of coefficient alphas as .84, .57, and .83. Meanwhile, Thøgersen-Ntoumani and Ntoumanis (2007) reported the alphas score of .76, .60, and .75 for autonomy, competence and relatedness, respectively.

Greguras and Diefendorff (2009) applied the same scales to samples of employees in a variety of industries and occupations which included in government, finance, manufacturing, transportation, human services, and others. The study reported alphas of .66 for autonomy, .67 for competence and .85 for relatedness. It was followed by Kashdan et al., (2009) who conducted a study on undergraduate college students in a public university in the Mid-Atlantic, and the alpha scores were .81, .86, and .90 for autonomy, competence, and relatedness, respectively.

Other studies have utilized the 21-item measure of PNS. All show internal subscale consistencies in the range of .61 to .81 for autonomy, .60 to .86 for competence, and .61 to .90 for relatedness (Johnston & Finney, 2010; Ahmad et al., 2012; Dysvik et al., 2013; Molix & Nichols, 2013; Schiffrin et al., 2014; Sylvester et al., 2014). The samples used in these studies include students, employees, residents and other that come from different contexts such as the United States, Jordan, China, and others.

Accordingly, the current study also adapted the Basic Need Satisfaction Scale (Deci et al., 2001) measurement in order to assess employees' experience satisfaction with

the three intrinsic needs, autonomy, competence, and relatedness. The score for coefficient alphas were recorded as .61, .69, and .80 for autonomy, competence, and relatedness, respectively. All the items were measured using a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Table 3.6 below presents a sample of PNS (PNS) questionnaire.

Table 3.6: A sample PNS questionnaire

1= Strongly Dissatisfied	2= Dissatisfied	3= Moderately Dissatisfied	4= Neither satisfied nor dissatisfied	5= Moderately Satisfied	6= Satisfied		7= Strongly Satisfied			
To what extent do you <u>satisfy</u> each of the following statements?				Strongly Dissatisfied	Dissatisfied	Moderately Dissatisfied	Neither Satisfied nor dissatisfied	Moderately Satisfied	Satisfied	Strongly Satisfied
1. I feel free to express my ideas and opinions in this job				1	2	3	4	5	6	7
2. I feel like I can be myself at my job				1	2	3	4	5	6	7
3. At work, I often feel like I have to follow other people commands				1	2	3	4	5	6	7
4. If I could choose, I would do things at work differently				1	2	3	4	5	6	7
5. In my job, I feel forced to do things I do not want to do				1	2	3	4	5	6	7
6. I feel free to do my job the way I think it could be best done				1	2	3	4	5	6	7
7. The tasks I have to do at work are in line with what I really want to do				1	2	3	4	5	6	7
8. I do not really feel competent in my job				1	2	3	4	5	6	7
9. I really master my tasks at my job				1	2	3	4	5	6	7
10. I feel competent at my job				1	2	3	4	5	6	7
11. I doubt whether I am able to execute my job properly				1	2	3	4	5	6	7
12. I have the feeling that I can even accomplish the most difficult tasks at work				1	2	3	4	5	6	7
13. I am good at the things I do in my job				1	2	3	4	5	6	7
14. I do not really feel connected with other people at my job				1	2	3	4	5	6	7
15. At work, I feel part of a group				1	2	3	4	5	6	7

1= Strongly Dissatisfied	2= Dissatisfied	3= Moderately Dissatisfied	4= Neither satisfied nor dissatisfied	5= Moderately Satisfied	6= Satisfied		7= Strongly Satisfied			
To what extent do you <u>satisfy</u> each of the following statements?				Strongly Dissatisfied	Dissatisfied	Moderately Dissatisfied	Neither Satisfied nor dissatisfied	Moderately Satisfied	Satisfied	Strongly Satisfied
16. I do not really mix with other people at my job				1	2	3	4	5	6	7
17. At work, I can talk with people about things that really matter to me				1	2	3	4	5	6	7
18. I often feel alone when I am with my colleagues				1	2	3	4	5	6	7
19. At work, there are people who really understand me				1	2	3	4	5	6	7
20. Some people I work with are close friends of mine				1	2	3	4	5	6	7
21. At work, no one cares about me				1	2	3	4	5	6	7

Job involvement refers to *‘the level the employee is engaged in and enthusiastic about performing prescribed tasks, unrelated to any health issues which committed to the job itself and not to the organization’*. Job involvement was measured using the 7 item scale developed by Lawler and Hall (1970). The 7 items are used to assess the criteria of psychological identification. They were recommended by Lodahl and Kejner (1965) as the best measurement of job involvement. They were also later revised by Kanungo (1982). These measures have been used in various samples and contexts in many studies (Brown & Leigh, 1996; Chiu & Tsai, 2006; Pierro, Kruglanski, & Higgins, 2006; Chen & Chiu, 2009; Kuhnel, Sonnentag, & Westman, 2009; Singh & Sarkar, 2012; Hogan, Lambert, & Griffin, 2013; Jayawardana et al., 2013; Kong, 2013; Lambert, Hogan, Cheeseman, & Barton-Bellessa, 2013; Scrima, Lorito, Parry, & Falgares, 2013; Golmohammadian, Nasab, Nejad, & Moyedfar,

2014). Table 3.7 below presents several studies that adapted the scale of job involvement from Lodahl & Kejner (1965) and Kanungo (1982).

Table 3.7: Studies that adapted the job involvement measures

Studies	Journal	Context/ Field	Cronbach's Alpha
(Brown & Leigh, 1996)	Journal of Applied Psychology	Sample 1: Salespeople – Manufacturing companies Sample 2: Sales representatives – Large medical products company	Sample 1: .69 Sample 2: .73
(Chiu & Tsai, 2006)	The Journal of Psychology	Employees – Hotel & Services - Taiwan	.88
(Pierro et al., 2006)	Journal of Applied Social Psychology	Nurses – General Hospital - Italy	.65
(Chiu & Tsai, 2006)	The Journal of Psychology	Employees - Hotel and restaurant service - Taiwan	.88
(Chughtai, 2008)	Journal of Behavioral and Applied Management	University Teachers – Universities - Pakistan	.71
(Kuhnel et al., 2009)	Journal of Occupational and Organizational Psychology	Nurses – Hospitals – Germany & Switzerland	.89
(Chen & Chiu, 2009)	The Journal of Social Psychology	Employees – Various companies - Taiwan	.82
(Islam, Khan, et al., 2012)	SA Journal of Human Resource Management	Employees – Banking Sector - Pakistan	.88
(Singh & Sarkar, 2012)	Journal of Personnel Psychology	Primary School Teachers - India	.88
(Kong, 2013)	International Journal of Hospitality Management	Employees – Hotels - China	.88
(Lambert et al., 2013)	Howard Journal of Criminal Justice	Staff at a privately-owned and operated high-security, juvenile correctional facility in the Midwestern part of the US	.812
(Jayawardana et al., 2013)	The International Journal of Human Resource Management	Middle Managers – Garment Manufacturers – Sri Lanka	.67
(Scrima et al., 2013)	The International Journal of Human Resource Management	Employees – Manufacturing, Public & Retail Sectors - Italy	.84
(Golmohammadi an et al., 2014)	Global Advanced Research Journal of Management and	Faculty members – University- Iran	.87

	Business Studies		
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In the Journal of Applied Psychology, Brown and Leigh (1996) studied two different samples : from manufacturing companies and sales representatives from a large medical products company. The coefficient alpha score was found to be .69 in sample 1 and .73 in sample 2. A study by Chiu and Tsai (2006) measured job involvement of employees in hotel and service context in Taiwan using 18 items with a reported reliability of $\alpha = .88$. Some studies were conducted in hospitals (Kuhnel et al., 2009; Pierro et al., 2006). Kuhnel et al. (2009) used 8-items questions for job involvement among nurses in Germany and Switzerland and reported an alpha of .89. Meanwhile, Pierro et al. (2006) reported an alpha of .65 for their sample of nurses in a general hospital in Italy.

More recent studies chose to adapt Lodahl and Kejner's (1965) scale of job involvement. In Taiwan, Chen and Chiu (2009) surveyed employees from different occupations which include manufacturing, research and development, administration, and others. The Cronbach's alpha for the study was found to be .82. Later, Islam, Khan, Ahmad, and Ahmed (2012) measured job involvement levels of employees in the banking sector in Pakistan, Singh and Sarkar (2012) did the same on primary school teachers in India, and Kong (2013) worked with hotel employees in China. The three studies resulted in a Cronbach's alpha of .88.

Recently, Lambert et al. (2013) adapted the item for job involvement of staff to collect data at a privately owned and operated high-security, juvenile correctional

facility in the Midwestern part of the United States. Hogan et al. (2013) collected data from staff at the same prison. Their response scale for the items was a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Their responses resulted in a Cronbach's internal reliability alpha of .81 and .74, respectively. In the same year, Jayawardana et al. (2013) reported an alpha of .67 for the measure of job involvement among middle managers of garment manufacturers in Sri Lanka.

Scrima et al. (2013) used six items from the Italian version of the measure of job involvement on the scale in order to conduct a survey on employees in manufacturing, public, and retail sectors in Italy. The Cronbach's alpha for the measure was found to be .84. Recently, a study by Golmohammadian et al. (2014) collected data from faculty members in a university in Iran using job involvement questionnaires and the alpha was .87.

The current study applied 7 items which were measured using a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). This study reported a Cronbach's alpha of .79. Table 3.8 presents all the questions for job involvement.

Table 3.8: Sample of questionnaire for job involvement

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree			6= Agree	7= Strongly Agree		
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1. The major satisfaction in my life comes from my job				1	2	3	4	5	6	7
2. The most important things that happen to me involve my job				1	2	3	4	5	6	7
3. I live, eat and breath my job				1	2	3	4	5	6	7
4. I am very much involved personally in my work				1	2	3	4	5	6	7
5. I am really perfectionist about my work				1	2	3	4	5	6	7
6. Most things in life are more important than work				1	2	3	4	5	6	7
7. The most important things that happen to me involved my present job				1	2	3	4	5	6	7

Organizational Commitment refers to *‘the level of an employee’s attachment to his or her organization’*. In this study, organizational commitment is regarded as affective, continuous, and normative commitment. All of these items were developed by Allen and Meyer (1990) in a study conducted on full-time, non-unionized employees in three organizations; two manufacturing firms, and a university.

Table 3.9 below presents several studies conducted in various fields that adapted the measures developed by Allen and Meyer (1990). The internal reliability scores from all the studies were found to be reliable (Amos & Weathington, 2008; Chang, Chi, & Miao, 2007; Finegan, 2000; Weng, McElroy, Morrow, & Liu, 2010).

Table 3.9: Studies that adapted the organizational commitment measures

Studies	Journal	Context / Field	Cronbach's Alpha
(Finegan, 2000)	Journal of Occupational and Organizational Psychology	Employees -a subsidiary plant of a large petrochemical company – United States of America	AOC = .81 NOC = .69 COC = .74
(Chang et al., 2007)	Journal of Vocational Behavior	Staff – Hospitals - Taiwan	AOC = .82 NOC = .74 COC = .70
(Amos & Weathington, 2008)	The Journal of Psychology	Undergraduate and graduate students - midsize university - Southern United States	AOC = .85 NOC = .69 COC = .68
(Weng et al., 2010)	Journal of Vocational Behavior	Employees – Variety of companies – 9 cities in China	AOC = .86 NOC = .84 COC = .78
(Neininger, Lehmann-Willenbrock, Kauffeld, & Henschel, 2010)	Journal of Vocational Behavior	Employees - Automotive supply and high-voltage technology Industries - Southern Germany – Longitudinal Study	OC t1 = .89 OC t2 = .92 OC t3 = .93
(Ng & Feldman, 2011)	Journal of Vocational Behavior	Meta-analysis study	-
(Rego, Ribeiro, Pina, & Correia, 2011)	Journal of Business Research	Employees – Small and Medium companies	AOC = .79
(Jo & Joo, 2011)	Journal of Leadership & Organizational Studies	Non-executive or executive-level employees serving for-profit organizations in South Korea.	AOC = .90
(Ng & Feldman, 2012)	Human Relations	Employees – Variety of Industries	AOC = .96
(Kell & Motowidlo, 2012)	Journal of Applied Social Psychology	Undergraduates – University – United States	AOC = .88 NOC = .76 COC = .72
(Huang, 2012)	Information Technology & People	A large Hong Kong association of computer specialists	AOC = .87 COC = .85
(Yücel, 2012)	International Journal of Business and Management	Employees – Manufacturing company - Turkey	AOC = .893 COC = .711 NOC = .779
(Marique, Stinglhamber, Desmette, Caesens, & De Zanet, 2012)	Group & Organization Management	Employees – International Engineering Company - Belgium	AOC = .79
(Morrow, McElroy,	Journal of Vocational	Employees – Financial Services	AOC = .901

& Scheibe, 2012)	Behavior	Organization – United States	
(Joo, Yoon, & Jeung, 2012)	Leadership & Organizational Development Journal	Employees – for profit organizations – South Korea	AOC = .83
(Çakmak-Otluoğlu, 2012)	Journal of Vocational Behavior	Employees – Private Sector Organizations –Istanbul, Turkey	AOC = .91 NOC = .87 COC = .82
(Simosi, 2012)	Personnel Review	New employees – Public Service Organization - Greece	AOC = .81 NOC = .83
(Bal, de Lange, Zacher, & Van der Heijden, 2013)	European Journal of Work and Organizational Psychology	Employees - Two departments of a large telecommunications company - Belgium.	NOC = .74 COC = .81
(Scrima et al., 2013)	The International Journal of Human Resource Management	Employees – Manufacturing, Public & Retail Sectors - Italy	AOC = .82
(Chun, Shin, Choi, & Kim, 2013)	Journal of Management	Employees – Private Companies – South Korea	
(Miao, Newman, Schwarz, & Xu, 2013)	British Journal of Management	Full-time Employees – Government Departments – Zhejiang Province, China	AOC = .93 NOC = .87 COC = .79
(Suliman & Kathairi, 2013)	Employee Relations	Employees – Government Organizations - UAE	
(Tourigny, Baba, Han, & Wan, 2013)	The International Journal of Human Resource Management	Nurses - China	AOC = .79
(Ibrahim & Perez, 2014)	International Journal of Business and Management	Employees – Variety of companies - UAE	
(Casimir, Ng, Wang, & Ooi, 2014)	Leadership & Organization Development Journal	Full-time Employees – Variety of Industries (high-tech, manufacturing, service and education) - China	AOC = .85
(Wang, 2015)	The International Journal of Human Resource Management	Full-time employees – manufacturing company – Kyoto, Japan	AOC = .83 COC = .73

In the Journal of Occupational and Organizational Psychology, Finegan (2000) adapted an 18-item commitment scale and reported alpha scores of .81, .69, and .74

for affective, normative, and continuance commitment, respectively. The sample is represented by employees in a subsidiary plant of a large petrochemical company in the United States. Chang, Chi, and Miao (2007) collected data on six items for each of the three components which was answered by staffs in Taiwan hospitals. Responses were made on a seven point scale and Cronbach's alpha of .82, .70, and .74 were obtained for affective, continuance, and normative commitment, respectively. Amos and Weathington (2008) conducted a study of undergraduates and graduate students in a university in Southern United States and recorded the reliability coefficients for affective, normative, and continuance organizational commitment as .85, .60, and .68, respectively. In the *Journal of Vocational Behavior*, Weng, McElroy, Morrow, and Liu (2010) adapted a six-item scale in order to test the dimensions of organizational commitment of employees in various companies in nine cities in China. The Cronbach's alphas recorded were .86, .84, and .78 for affective, continuance, and normative commitment, respectively.

Moreover, many researchers included affective organizational commitment (AOC) in their studies with various samples and in different context of studies (Neininger, Lehmann-Willenbrock, Kauffeld, & Henschel, 2010; Jo & Joo, 2011; Ng & Feldman, 2011; Rego, Ribeiro, Pina, & Correia, 2011; Joo, Yoon, & Jeung, 2012; Marique, Stinglhamber, Desmette, Caesens, & De Zanet, 2012; Morrow, McElroy, & Scheibe, 2012; Ng & Feldman, 2012; Simosi, 2012; Tourigny, Baba, Han, & Wang, 2012; Scrima et al., 2013; Casimir, Ng, Wang, & Ooi, 2014; Wang, 2015). In a longitudinal study, Neininger et al. (2010) calculated Cronbach's alpha for AOC 3

times for employees in high – voltage technology industries in Southern Germany. They reported alpha values of .89, .92, and .93 for Times 1, 2, and 3, respectively.

Furthermore, Jo and Joo (2011) selected affective organizational commitment which explained the overall organizational commitment better than the other two dimensions for measuring behavioural aspects (Meyer & Allen, 1991). They collected data on a sample of employees in profit organizations in South Korea with and obtained a reliability coefficient of .90. In two different studies by Ng (2012) and Feldman (2011), the calculated reliability coefficients of affective organizational commitment were .84 and .84 respectively. A revised version of the six-item scale of Meyer, Allen, and Smith (1993) was used to measure affective organizational commitment in a study by Marique et al. (2012). This study collected data from a sample of employees in an international engineering company in Belgium. The alpha was .79.

Affective OC was evaluated using a five-item scale on employees of a financial services organization in the United States of America and new employees in Greece (Morrow et al., 2012; Simosi, 2012). The Cronbach's alpha was found to be .90 and .81 respectively. In South Korea, Joo et al. (2012) measured affective OC for employees of profit organizations with an alpha of .83. An alpha of .82 for affective commitment was reported for employees in the manufacturing, public and retail sectors (using a six-item scale) in Italy.

Recently, Tourigny, Baba, Han, and Wan (2013) distributed six-item affective OC questionnaires to nurses in China. The affective OC alpha reported was .79. Another

study of affective commitment was measured using Allen and Meyer's (1990) eight-item scale, and the reliability coefficient was found to be .85 (Casimir et al., 2014). Similarly, Wang (2015) measured affective by eight items and continuance commitment is measured by another four items on full time employees in a manufacturing company in Kyoto, Japan. The alphas of affective and continuance commitment were .83 and .73 respectively.

The current study revised the items of Allen and Meyer (1990) related to the three types of commitment which are affective, continuous, and normative commitment. All of the 24 items were frequently used in previous studies as discussed above. All of these items were measured using a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7) in Table 3.10 shown below:

Table 3.10: Sample of questionnaire for organizational commitment

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree				
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1	I would be very happy to spend the rest of my career with this organization			1	2	3	4	5	6	7
2	I enjoy discussing my organization with people outside it			1	2	3	4	5	6	7
3	I really feel as if this organization's problem are my own			1	2	3	4	5	6	7
4	I think that I could easily become as attached to another organization as I am to this one			1	2	3	4	5	6	7
5	I do not feel like 'part of the family' at my organization			1	2	3	4	5	6	7
6	I do not feel 'emotionally attached' to this organization			1	2	3	4	5	6	7
7	This organization has a great deal of personal meaning for me			1	2	3	4	5	6	7
8	I do not feel a strong sense of belonging to my organization			1	2	3	4	5	6	7

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree
9 I am not afraid of what might happen if I quit my job without having another one lined up				1 2 3 4 5 6 7		
10 It would be very hard for me to leave my organization right now, even if I wanted to				1 2 3 4 5 6 7		
11 Too much in my life would be disrupted if I decided I wanted to leave my organization now				1 2 3 4 5 6 7		
12 It would not be too costly for me to leave my organization now				1 2 3 4 5 6 7		
13 Right now, staying with my organization is a matter of necessity as much as desire				1 2 3 4 5 6 7		
14 I feel that I have too few options to consider leaving this organization				1 2 3 4 5 6 7		
15 One of the few serious consequences of leaving this organization would be the scarcity of available alternatives				1 2 3 4 5 6 7		
16 One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice – another organization may not match the overall benefits I have here				1 2 3 4 5 6 7		
17 I think that people these days move from company to company too often				1 2 3 4 5 6 7		
18 I do not believe that a person must always be loyal to his or her organization				1 2 3 4 5 6 7		
19 Jumping from organization to organization does not seem at all unethical to me				1 2 3 4 5 6 7		
20 One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain				1 2 3 4 5 6 7		
21 If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization				1 2 3 4 5 6 7		
22 I was taught to believe in the value of remaining loyal to one organization				1 2 3 4 5 6 7		
23 Things were better in the days when people stayed with organization for most of their careers				1 2 3 4 5 6 7		
24 I do not think that wanting to be a ‘company man’ or ‘company woman’ is sensibly anymore				1 2 3 4 5 6 7		

In-role Performance refers to ‘behaviours that are recognized by the formal reward systems and are part of the requirements as described in job descriptions’. The measures revised by Williams and Anderson (1991) are adopted in the current study. Their study on full time employees in various organizations in the United States showed that the scales were useful and applicable to various related occupations as well. The Cronbach’s alpha was .91 for the study.

The present study adapted the 7-items of in-role performance scales of Williams and Anderson (1991). The supervisors were asked to provide their evaluation on their subordinates’ in-role performance. The subject of each questions from ‘I’ were changed to ‘He or She’ to represent the employees who have been rated in the survey. This measure is intended to reflect how well a person performs the activities required based on his or her job description. The reliability coefficient on this measures was .82.

The scales of Williams and Anderson (1991) were also adapted by several researchers. This is a well-establish measure and the construct validity of this measure which is demonstrated in many studies (Diefendorff et al., 2002; Cropanzano, Rupp, & Byrne, 2003; Turnley, Bolino, Lester, & Bloodgood, 2003; Ozer, 2011; Liu, Kwan, Fu, & Mao, 2013; Zhang, 2013; Shen, Benson, & Huang, 2014; Spector & Che, 2014; Harzer & Ruch, 2014; Liden, Wayne, Liao, & Meuser, 2014; Casimir et al., 2014; Zheng, Zhu, Zhao, & Zhang, 2015). Table 3.11 below presents the studies that adapted the measurement:

Table 3.11: Studies that adapted the in-role performance measures

Studies	Journal	Context / Field	Cronbach's Alpha
(Williams & Anderson, 1991)	Journal of Management	Full time employees – Various organizations – United States of America	.91
(Diefendorff et al., 2002)	Journal of Organizational Behavior	Employed undergraduate students Variety of industries (engineering, education, health care & others – United States of America	.91
(Cropanzano et al., 2003)	Journal of Applied Psychology	Employees & supervisors – hospital – United States of America	.88
(Turnley et al., 2003)	Journal of Management	Students & Employees – University & Health care company – United States of America	.93
(Ozer, 2011)	Journal of Applied Psychology	Three different sources— jewellery designers, their coworkers, and supervisors (employees, co-workers & supervisors) - in Asia	.92
(Nasurdin & Khuan, 2011)	International Journal of Commerce and Management	Employees – Telecommunication company - Malaysia	.95
(Shimazu, Schaufeli, Kubota, & Kawakami, 2012)	Industrial Health	Employees – Variety of jobs - Japan	.83 - .84
(Zhang, 2013)	Journal of Business Ethics	Employees – Various jobs - China	.86
(Liu et al., 2013)	Journal of Occupational and Organizational Psychology	Employees & Supervisors – Oil & Gas Manufacturer – China	.86
(Ahmed, Ismail, Amin, & Nawaz, 2013)	Chinese Management Studies	Employees – Hotels - Malaysia	.90
(Casimir et al., 2014)	Leadership & Organization Development Journal	Full-time Employees – Variety of Industries (high-tech, manufacturing, service and education) – China	.86
(Liden et al., 2014)	Academy of	Employees – Restaurants – United	.92

	Management Journal	States	
(Caesens & Stinglhamber, 2014)	European Review of Applied Psychology	Employees – 2 Private Organizations (computer & banking) -Belgium	.83
(Shen et al., 2014)	Human Resource Management	Teachers – Schools - China	.88
(Harzer & Ruch, 2014)	Human Performance	Employees – Various occupations - Germany	
(Spector & Che, 2014)	Human Performance	Employees – various occupations	.84
(Zheng et al., 2015)	Journal of Organizational Behavior	Meta-analysis study – employees – high tech enterprise	.80

In the United States, many researchers used the scales from Williams and Anderson (1991) in order to report the in-role performance in their studies using the evaluation obtained from supervisors. For example, Diefendorff et al., (2002) adapted the 7-item measure ($\alpha = .91$) of in-role behaviours on employed undergraduate students in various industries including engineering, education, health care, and others. Cropanzano et al. (2003) conducted a study on supervisor's rating for job performance ($\alpha = .88$) at a hospital. Turnley et al. (2003) assessed students and employees in a university and a health care company based on a six-item in-role performance scale. The Cronbach's alpha was .93. Recently, Liden et al. (2014) conducted a study on employees in restaurants using the four items ($\alpha = .92$) adapted from the scale which was evaluated by their manager.

In the Asian context, job performance was assessed by the employees' immediate supervisors who rated their employees' performance using a 7-item scale ($\alpha = .92$) (Ozer, 2011). The study participants were comprised of three different groups,

jewellery designers, the co-workers and supervisors. In China, (Liu et al., 2013) conducted research examining employees and supervisors of oil and gas manufacturing company. Meanwhile, Casimir et al. (2014) conducted a study on full-time employees in various industries including high-tech manufacturing, service, and education. Both reported Cronbach's alpha .86. Shen et al. (2014) derived a 7-item scale which was used on a sample of teachers in several schools. The measures reported Cronbach's alpha as .88.

Supervisory ratings on task performance were collected in Germany from employees in various occupations (Harzer & Ruch, 2014). They reported internal consistency to be very satisfying for sample 1 ($\alpha = .82$) and sample 2 ($\alpha = .84$). Spector and Che (2014) used the adapted 7-item scale data collected from employees' supervisors, which reported Cronbach's alpha as .84. In the Journal of Organizational Behavior, Zheng et al. (2015) used the seven in-role behaviour of employees in high-tech enterprise with reported reliability coefficient of .80.

All the items were measured using a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Table 3.12 below presents the sample questionnaire for in-role performance:

Table 3.12: A sample questionnaire for in-role performance

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree			6= Agree		7= Strongly Agree	
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1.	He/she adequately completes assigned duties			1	2	3	4	5	6	7
2.	He/she fulfills responsibilities specified in the job description			1	2	3	4	5	6	7
3.	He/she performs tasks that are expected of him/her			1	2	3	4	5	6	7
4.	He/she meets formal performance requirements of the job			1	2	3	4	5	6	7
5.	He/she engages in activities that will directly affect his/her performance evaluation			1	2	3	4	5	6	7
6.	He/she neglects aspects of the job he/she is obligated to perform			1	2	3	4	5	6	7
7.	He/she fails to perform essential duties			1	2	3	4	5	6	7

Organizational Citizenship Behavior refers to ‘*an employee behaviour that is voluntarily based, not directly rewarded or not rewarded by the formal reward system*’. The 14 items of the OCB-O (directed towards the whole organisation) and OCB-I (directed at other individuals) scale developed by Williams and Anderson (1991) were used. The researcher used supervisory ratings to test the scales. The Cronbach’s alphas were .73 and .68 for OCB-I and OCB-O respectively. As examined by Ng and Feldman (2011) in their meta-analysis study, 88% of the studies used supervisory ratings of OCB, 11% used peer ratings and 1% represented

the objective measures. The average scale reliability was .87 across all the studies mentioned.

Importantly, many studies confirmed strong coefficient alpha values for this scale (Turnley et al., 2003; Cropanzano et al., 2003; Ozer, 2011; Arthaud-Day, Rode, & Turnley, 2012; Chun et al., 2013; Liu et al., 2013; Tourigny et al., 2013; Ozer, Chang, & Schaubroeck, 2014; Shin, Kim, Choi, Kim, & Oh, 2014; Wei, 2014; Wang, 2015; Brummel & Parker, 2015). Table 3.13 below presents the studies that adapted the scales of OCB from Williams and Anderson (1991).

Table 3.13: Studies that adapted the OCB measures

Studies	Journal	Context / Field	Cronbach's Alpha
(Cropanzano et al., 2003)	Journal of Applied Psychology	Employees & supervisors – hospital – USA	Ocbo= .79 Ocbs = .89
(Turnley et al., 2003)	Journal of Management	Students & Employees – University & Health care company– USA	OCB-I = .88 OCB-O = .83
(Ozer, 2011)	Journal of Applied Psychology	three different sources— jewelry designers, their co-workers, and supervisors (employees, co-workers & supervisors) - in Asia	OCBI = .87 OCBO = .88
(Arthaud-Day et al., 2012)	Journal of Applied Psychology	Students – University – Midwestern United States	OCB-I = .89 OCB-O = .75
(Tourigny et al., 2013)	The International Journal of Human Resource Management	Nurses - China	OCB-I = .92 OCB-O = .87
(Chun et al., 2013)	Journal of Management	Employees – Private Companies – South Korea	OCB-I = .87 OCB-O = .80
(Liu et al., 2013)	Journal of Occupational and Organizational Psychology	Employees & Supervisors – Oil & Gas Manufacturer – China	OCB-O = .91 OCB-I = .86
(Shin et al., 2017)	Journal of Management	Leaders & followers – Variety of companies	OCB-O = .87 OCB-I = .80

		(Service, Banking and financial service , Manufacturing & others) – South Korea	
(Ozer et al., 2014)	Journal of Occupational and Organizational Psychology	Employees – IT industry	OCB-I = .91 OCB-O = .89
(Wei, 2014)	International Journal of Business and Management	Engineers & supervisors – High-tech companies - Taiwan	OCB-I = .91 OCB-O = .91
(Brummel & Parker, 2015)	Applied Psychology: An International Review	Employees – Variety of industries and organizations – Midwestern United States & Washington	Self-rated; OCB-I = .87 OCB-O = .81 Supervisor's rating; OCB-I = .79 OCB-O = .68
(Wang, 2015)	The International Journal of Human Resource Management	Full-time employees – manufacturing company – Kyoto, Japan	Overall OCB = .76

A study was conducted in a hospital in the United States was to assess employees' OCBs based on the supervisor's ratings regarding their behaviors (Cropanzano et al., 2003). In addition, Turnley et al. (2003) provided the supervisors' evaluation of the students' and employees' performance along two dimensions. OCBs were assessed through OCB-I (directed at other individuals) and OCB-O (directed toward the whole organization). The Cronbach's alphas for the six-item OCB-I and the six-item OCB-O scales were found to be .88 and .83 respectively. Another study in the United States required students to rate the performance of individual team members using OCB scale after completing all team activities (Arthaud-Day et al., 2012). Overall,

the two dimensions displayed acceptable internal reliabilities represented as $\alpha = .89$ and $.75$ for OCB-I and OCB-O respectively.

In the Asian context, a study with three different sources of data collection, which involved jewelry designers, their co-workers, and supervisors, was conducted by Ozer (2011). Using a seven-point Likert scale, the OCB-I and OCB-O measures had reliability scores of $.87$ and $.88$ respectively. Next, Tourigny et al. (2013) conducted a study on nurses in China which reported high scores on the OCB-I and OCB-O scales ($\alpha = .92$ and $.87$ respectively). Meanwhile, among South Korean employees in private companies, it was reported that OCB-I and OCB-O received scores of $.87$ and $.80$ respectively.

In the Journal of Occupational and Organizational Psychology, an OCB-I and OCB-O 14-item scale that was originally developed by Williams and Anderson (1991) was tested among employees in an oil and gas manufacturing company in China (Liu et al., 2013). Supervisory ratings were used and the alphas recorded were $.86$ and $.91$ for OCB-I and OCB-O respectively. In the Journal of Management, a study conducted by Shin et al., (2014) on leaders and followers from various companies (including services, banking and financial services and manufacturing) adapted six items of OCB-I and five items of OCB-O to be included in their measures. The Cronbach's alphas were $.80$ and $.87$ respectively.

Recently, numerous studies measure the OCBs from the two dimensions, namely OCB-I and OCB-O (Ozer et al., 2014; Wei, 2014; Brummel & Parker, 2015). Ozer et al., (2014) which used self-ratings for a 16-item scale for OCB-I and OCB-O ($\alpha = .91$

and .89 respectively. However, supervisor ratings of the OCBs were obtained from 8 items of OCB-I and 8 items of OCB-O in Wei (2014)'s study. The Cronbach's alphas were .91 and .91 respectively. In the United States, the latest study conducted by Brummel & Parker (2015) assessed the measures from two sources, namely self-ratings and supervisory ratings. Moreover, Wang (2015) reported an overall OCB with alpha .76 ($\alpha = .76$) for full time employees in a manufacturing company in Kyoto, Japan.

Employees in various industries and organizations have been sampled using the measures of OCB-I and OCB-O. The study reported Cronbach's alphas of .87 and .81 for self-rated and .79 and .68 for supervisor's rating (Brummel & Parker, 2015).

The 14 items adapted from Williams and Anderson (1991) were measured on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Table 3.14 presents all the questions adapted from the scales of OCB-I and OCB-O as shown below:

Table 3.14: A sample of OCB questionnaire

Table 3.14: A sample of GED questionnaire														
1= Strongly Disagree		2= Disagree		3= Somewhat disagree		4= Neither agree nor disagree		5= Somewhat Agree		6= Agree		7= Strongly Agree		
To what extent do you <u>agree</u> with each of the following statements?								Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1		He/she helps others who have been absent						1	2	3	4	5	6	7
2		He/she helps others who have heavy workloads						1	2	3	4	5	6	7
3		He/she assists supervisor with his/her work (when not asked)						1	2	3	4	5	6	7
4		He/she takes time to listen to co-workers' problems and worries						1	2	3	4	5	6	7

5 He/she goes out of way to help new employees	1	2	3	4	5	6	7
6 He/she takes a personal interest in other employees	1	2	3	4	5	6	7
7 He/she passes along information to co-workers	1	2	3	4	5	6	7
8 His/her attendance at work is above the norm	1	2	3	4	5	6	7
9 He/she gives advance notice when unable to come to work	1	2	3	4	5	6	7
10 He/she takes undeserved work breaks	1	2	3	4	5	6	7
11 He/she has a great deal of time spent with personal phone conversations	1	2	3	4	5	6	7
12 He/she complains about insignificant things at work	1	2	3	4	5	6	7
13 He/she conserves and protects organizational property	1	2	3	4	5	6	7
14 He/she adheres to informal rules devised to maintain order	1	2	3	4	5	6	7

Step 4: Determine Form of Response to Questions

The next step was to determine the form of response for each question. The type of question can be divided into two, namely open-ended or closed format. Open-ended questions allow the respondents to answer them in any way they choose, while closed questions provide them with choices among a set of alternatives provided by the researcher (Sekaran & Bougie, 2009).

In this study, the researcher employed both forms of response format. The open-ended questions format was applied only in the demographic profiles of the respondents (age and how long you have been working here?). Meanwhile, the rest of the questions employed the closed format whereby the respondents were asked to

select their best answer from the list provided. Closed questions are much easier to do and promote quick decisions to be chosen among several given alternatives. The respondents are often made clear about the meaning of the questions and the answers are relatively complete (Bailey, 1994). In addition, the answers are standard and can be coded directly from the questionnaire. Hence, it can save time and money. However, the process of formulating the alternative answers should be done with care in order to prevent the respondents from getting frustrated and confused.

The current study applied a seven-point Likert rating scale to all the variables in the questionnaire. It is widely believed that a five or seven point scale may be able to produce slightly higher mean scores which is relative to the highest possible attainable score compared to those produced from a ten point scale (Dawes, 2008). However, there are many disadvantages of using a Likert scale method which include its ability to overcome the criticisms of other scales by allowing the respondents to express the intensity of their feelings (Kinnear & Taylor, 1991). The respondents would also find it much more difficult to give exact responses to questions dealing with issues that have low salience to them; for example, reporting how many hours of television they had watched in the past week (Frankfort-Nachmias & Nachmias, 1996).

Step 5: Determine Wording of Each Question

In this study, the researcher followed some general principles recommended by several researchers such as Bryman (2004), Churchill and Iacobucci (2002), Kinnear and Taylor (1991), and Sekaran and Bougie (2009) in order to ensure that the

questions were properly phrased. The wording of the questions is important because poor phrasing of a question can negatively influence the respondents causing them to refuse to answer it or answering incorrectly (Churchill & Iacobucci, 2002).

First, it is advisable to include some negatively worded questions instead of phrasing all questions positively (Sekaran & Bougie, 2009). In this study, negatively worded questions, also known as reverse-code questions, were included so that the respondent will remain alert while answering the questions. This might help to reduce bias. Second, double-barreled questions (i.e. questions that lend itself to different possible responses to its subparts) were avoided. Third, this study eliminated ambiguous questions which might lead the respondents to misinterpret the questions without considering to possibility of answering incorrectly. Fourth, leading questions were avoided as they pressure respondents to provide responses required by the researcher (Sekaran & Bougie, 2009). Finally, efforts were made to employ simple words to ensure that everybody understands the question in the same manner. Straightforward language and words were used in the questionnaire.

Step 6: Determine Sequence of Questions

The survey presented the questions based on several recommendations provided by previous studies. It is important to note that poor question sequencing may confuse respondents, promote bias responses, and negatively influence the response rate (Rea & Parker, 2005).

First, the location of questions plays a major role in the survey questionnaire. Easy, simple, and interesting questions were put in the first part of the questionnaire, while

the difficult questions were placed at the back (Churchill & Iacobucci, 2002; Frankfort-Nachmias & Nachmias, 1996). This is to promote confidence among the respondents and to make them comfortable to complete the survey questionnaire. In this study, the questions pertaining to respondents' demographic characteristics were placed in the first section. Second, the funnel approach is applied in this survey to help the respondents to progress through the questionnaire with ease and comfort (Sekaran & Bougie, 2009). Finally, similar questions were grouped together and items were arranged based on topics.

Step 7: Determine Layout and Physical Characteristics of Questionnaire

The layout and physical characteristics of the questionnaire can also be understood as the general appearance of the questionnaire, which is very important because they can influence respondents' cooperation and the ease of processing the responses (Churchill & Iacobucci, 2002). Moreover, it is essential to pay attention to this matter in order to establish some rapport with the respondents and motivate them to respond to the questions enthusiastically (Sekaran & Bougie, 2009). It is necessary to prepare a good introduction, well-organized instructions, and neat alignment of the questions. All the items mentioned are taken into consideration because this study involved paper-based questionnaires. The numbering of the questions makes the editing, coding, and tabulation of responses easier (Churchill & Iacobucci, 2002). Therefore, several steps have been taken to ensure that the survey is able to capture the information required.

Finally, a cover letter was attached to each questionnaire. The letter briefly explained the purpose of the study, the instructions to manage the survey, and the assurance of confidentiality. In addition, the contact details of the researcher was also included which is helpful for any further assistance needed in answering the questionnaire and any request related to the study. The cover letter ends with a courteous note, thanking the respondent for taking their time to respond to the survey.

The questionnaires were organized section by section. The first section starts with the information background questions, followed by several sections on the conceptualizations mentioned in the previous step. The questions were ensured to be organized logically and neatly provided with proper instructions for each section. The font size, spacing and colour, used as well as the format of the questions were consistent throughout the questionnaire. The questionnaires were printed double-sided good quality paper which is one of the ways to minimize the thickness of the questionnaire.

Step 8: Re-examine and Revise if Necessary

All of the questions were reviewed to ensure that they were free from any ambiguity, confusion, cause for bias, or difficulty to answer.

Step 9: Questionnaire Pretesting

A pre-test or pilot test helps to resolve any weaknesses before the questionnaires are administered to respondents, which is also beneficial in reducing bias (Sekaran & Bougie, 2009). The purpose of pretesting is to ensure that the respondents have no

difficulties to understand or answer the questions based on the given instructions (Saunders, Lewis, & Thornhill, 2007). The study questionnaire was first pretested, which will be further discussed in the following subsection.

3.3.3 Sample Characteristics

In survey research, sampling is preferable compared to surveying the entire population due to time and cost constraints (McDonnell, Lavelle, Gunnigle, & Collings, 2007). Sampling is defined as a study involving a sample (small units) of individuals selected from a larger population (Levy & Lemeshow, 2013). There are two major sampling methods involved in determining the sampling design, namely probability and nonprobability sampling. In probability sampling, the elements in the population have some known, non-zero chance of being included as the sample subjects. On the contrary, in nonprobability sampling, there is no need to include any known or predetermined chance of being selected as subjects (Sekaran & Bougie, 2009), as it relies on personal judgement somewhere in the element selection process (Churchill & Iacobucci, 2002).

In this study, the population of interest consists of academicians of higher education institutions in Malaysia. The Department of Statistics (2012) reported an approximate total of 65,000 lecturers in higher education institutions in Malaysia. The state of Kuala Lumpur and Selangor was chosen as the area of interest because these two locations contain the most universities in Malaysia. The sampling units consist of university teaching staffs, which include professors, assistant professors, senior lecturers, lecturers, and tutors. A convenience sample is a type of non-

probability sampling, whereby the subjects are selected based on their accessibility or convenience to the researcher (Ross, 2005). This type of sample is sometimes called *accidental sample* because the elements composing the sample may be drawn into the sample simply because they just happen to be located where the process of data collection takes place (Churchill & Iacobucci, 2002; Ross, 2005). Convenience samples are very common in social research and are widely used in organization studies because they do not require a lot of time, effort, and money (Bryman, 2008). Convenience sampling is chosen to select the sample for this study due to time and budget constraints.

Hair et al. (2010) asserted that a sample size of at least 100 and not exceeding 400 is considered adequate for Structural Equation Modelling (SEM) statistical analysis. The sample size required for this study is between 200 and 300 samples. The researcher managed the distribution of the questionnaires and recorded which numbers were distributed in which organization. A total of 600 questionnaires were distributed to the respondents and 320 completed questionnaires were returned using the convenience sampling method, which resulted in a response rate of 53%. Meanwhile, a total of 295 completed questionnaires were paired after each questionnaire was matched up with their immediate supervisor's. The respondents include academics from two types of institution within Kuala Lumpur and Selangor: public universities (N = 229) and private universities (N = 66). Hoe (2008) further argued that the sample size for any number above 200 is expected to provide sufficient statistical power for data analysis. However, Iacobucci (2010) claimed this rule of thumb can be conservative and surely simplistic. SEM models is said to

perform well even with small samples of 50 to 100. Therefore, a sample size of 295 was considered appropriate for the current study based on the examination of the relevant literature and given the complexity of the proposed conceptual model.

3.4 DATA COLLECTION PROCEDURES

In this study, the organization was approached to convince them to participate in this study as well as to request permission to access and distribute questionnaires to their organizations. In this case, the researcher introduced herself as a doctoral student by providing a cover letter containing an overview of the research and requested permission to access their organizations for the purpose of distributing the questionnaires (*see Appendix B*).

Confidentiality was stated in the cover letter to assure the participants. In addition, the participants were informed that this survey involved multiple ratings of performance, which require their supervisors to comment about their behaviour at work. The respondents were also informed that they are free to withdraw at any time and their responses will be excluded from the study. The respondents were asked to write down their name on the space provided and were informed that the answers would be kept confidential and only to be analysed at a group level. The researcher's contact details were also provided in the cover letter in case there were any further enquiries about the study or other aspects of the research. Overall, the participants were assumed to agree with all the procedures once they completed the

questionnaire. Apart from that, ethical approval was sought and obtained from the University of Salford's Research Ethics Panel (*see appendix A*).

The questionnaires were managed and the number of questionnaires distributed at each organization was recorded. The questionnaire for employees and their supervisors were both stated with the numbers running from 001 until 0600, whereby 300 questionnaires were distributed to public universities and private universities each (*see Appendix C*). At the same time, the immediate supervisors were also given a questionnaire to rate their subordinate. The name of the subordinate was asked to be written on top of the questionnaire. The questionnaire included items that are related to in-role performance and OCB. In addition, demographic questions for immediate supervisors were included at the end of the questionnaire (*see Appendix D*).

The process of data collection was conducted by accessing the samples of employees and immediate supervisors, which was facilitated and assisted through individuals who are in charge of personnel work in the organizations or HR personnel. The respondents knew their own supervisors so they helped to distribute the questionnaires to their supervisors. Two waves of data collection were involved in this process. The completed questionnaires were collected either on the same day or a few days later, but not more than three working days. In case the participants failed to provide their name, the log of distribution number of questionnaires was used to solve the problem. It was vital to ensure that both questionnaires matched and the data completed.

In the case of this study, the HR personnel are regarded as facilitators, which had no effect on the voluntary participation of the research participants and was not regarded as superior within the organization. For the purpose of data collection, the HR personnel only assisted in the distribution of questionnaires to academicians who volunteered to participate. Moreover, the issue of anonymity in this study was solved by replacing the respondents' names with codes (running numbers). The data entered after the matching process between the surveys from the employees and their immediate supervisors, and the questionnaires were stored in a locked drawer which was secure and could only be accessed by the researcher.

3.5 MANAGING COMMON METHOD BIAS

The exclusive use of self-reported data has raised concerns about the common method variance (Podsakoff et al., 2003). Assuming that all measures come from the same source, any deficiency in that source may contaminate all the measures, thus resulting in erroneous correlations between measures. However, multiple measures can be used for the variables in order to alleviate some of these concerns (Schappe, 1998).

In recent years, social scientists have become increasingly concerned about the validity of survey research, particularly in method bias (Podsakoff et al., 2003; Rindfleisch, Malter, Ganesan, & Moorman, 2008). Common method bias is described as the statistical variance used by the method of measurement rather than the constructs represented by the measure (Podsakoff et al., 2003). Podsakoff,

MacKenzie, and Podsakoff (2012) further argued that it is a serious problem in organizational and behavioural research.

The measures of the study variables are advised to be collected from more than one source in order to reduce the threat of bias (Podsakoff et al., 2003). Hence, the current study employed a number of procedural remedies for the purpose of minimising common method bias. First, the researcher collected multiple types of rating for employees' performance (in-role performance and OCB) from both the employee's self-reporting and their immediate supervisor's rating. Second, the study variables were measured in different parts to ensure that the measures of the variables are not connected with each other. Third, the respondents were assured that there was no right or wrong response in the effort to reduce respondent hesitation. Finally, careful attention was paid during the construction of the scale items. Any unfamiliar items, double-barrelled questions, and vague concepts were avoided. Additionally, a pilot study was conducted in order to reduce item ambiguity and maintain the accuracy of the questions.

3.6 DATA ANALYSIS METHOD

The Structural Equation Modelling with Partial Least Squares (PLS-SEM) version 3.0 was utilized to analyse a complete survey dataset in the study. Lohmoller (1989) argued that PLS applies a component-based approach for estimation purposes and is able to handle both reflective and formative structures. Furthermore, PLS-SEM places minimal restrictions on measurement scales, sample sizes, and residual

distributions compared to other approaches (Chin, Marcolin, & Newsted, 2003). The PLS-SEM approach is considered a useful and flexible tool for statistical model building. The flexibility and scope of PLS-SEM is able to further facilitate the analysis and investigation of large and complex path models.

In general, there are two possible applications of PLS-SEM which is either for theory confirmation or theory development (Chin, 1998). PLS is used to develop propositions by exploring the relationships between variables. Furthermore, the growth in the number of studies which utilized PLS-SEM as their data analysis method had led Urbach and Ahlemann (2010) to resolve potential uncertainties related to the use of PLS. PLS requires fewer demands regarding sample size compared to other methods; hence, it can be applied to complex structural equation models with a large number of constructs. It is also able to handle both reflective and formative constructs.

PLS-SEM has been successfully used in data analysis in various research areas including economics, marketing, banking, and others. (Anderson & Swaminathan, 2011; Ruiz, Esteban, & Gutiérrez, 2014; Schmiedel, Vom Brocke, & Recker, 2014). The majority of the researchers are often faced with the situation in which a research model requires a large number of observed variables. Unfortunately, most of the time, the number of respondents tend to be lower than expected, making it unrealistic to collect a large size of the data sample as required by SEM analysis. Kline (2005)

suggested that a desired sample size would be 20 times free parameters or that a realistic target would be 10 times free parameters.

The researcher chose the PLS-SEM approach due to its advantages over the covariance approach. The current research model for this study has many latent variables and over 80 corresponding indicators. In addition, the model is considered complex and the sample size only consists of 295 respondents. Therefore, PLS-SEM is a well-suited statistical technique for this study. Overall, the PLS-SEM approach matches the researcher's prediction-oriented objective, does not require normal data distribution, and accommodates small sample sizes (Chin & Newsted, 1999).

Table 3.15: Comparing PLS to covariance approaches of SEM

Criterion	PLS	Covariance-based
Research Objective	Prediction oriented	Parameter oriented
Approach	Variance	Covariance
Assumption	Nonparametric	Parametric
Implication	Optimal for prediction	Optimal for parameter estimation
Model complexity	Large complexity	Small to moderate complexity
Sample size	Minimum of 30-100	Based on power analysis

Source: adapted from (Chin & Newsted, 1999)

3.7 RELIABILITY AND VALIDITY OF MEASURES

There are two leading criteria considered in social research evaluation, namely reliability and validity (Bryman, 2008). Basically, both of the criteria are believed to

be the tools of an essentially positivistic epistemology, which is consequently relevant to quantitative research instead of qualitative research (Altheide & Johnson, 1998). This section also outlines the procedures used to examine the reliability and validity of the research instruments.

3.7.1 Reliability

Reliability consists of two forms of measure, namely the internal consistency reliability and split-half reliability coefficient (Sekaran & Bougie, 2009). First, it should be noted that internal consistency reliability is the most commonly used measure of reliability, and is also chosen to be applied in this study. Specifically, it measures the correlation among items or sets of items in the scale for those who answer the items (Bearden & Netemeyer, 1999). Second, the test of reliability measures the stability of scale items over time, in which the respondents are asked to complete the scales at two different times. The degree of similarity between the two measurements is determined by computing a correlation coefficient based on the context that the higher the correlation coefficient, the greater the reliability (Bearden & Netemeyer, 1999).

In the present study, the first approach of measuring reliability was adopted which is the internal consistency reliability. The generally agreed lower limit for Cronbach's Alpha is 0.7, although it may decrease to 0.6 in exploratory research (Hair et al., 2010). The most widely used tool for internal consistency reliability is Cronbach's Alpha (Bearden & Netemeyer, 1999). According to Kline (1999), Cronbach's alpha values between 0.7 and 0.8 are usually acceptable. In this case, values that are less

than 0.7 but more than 0.6 are considered acceptable due to the diversity of the measured constructs when dealing with psychological constructs (Kline, 1999). The value may even decrease to 0.6 in exploratory research (Hair et al., 2010).

The major problem with coefficient alpha refers to its positive relationship with the number of scale items. The increasing value of coefficient alpha is caused by the increase in number of the scale items. Hence, Cronbach's alpha may be inappropriately inflated by including several redundant items (Hair et al., 2010). Therefore, reliability measures derived from confirmatory factor analysis (CFA) were suggested in order to overcome this problem (Hair et al., 2010). Construct reliability estimates are also believed to deliver more rigorous results (Hair et al., 2010). The formula of calculating the construct reliability is presented below:

Construct Reliability	$= \frac{(\text{Sum of standardised loadings})^2}{(\text{Sum of standardised loadings})^2 + \text{Sum of indicator measurement error}}$
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The reliability of the study constructs is considered using Cronbach's alpha as well as the construct reliability. The results for reliability of the measures are presented in the next chapter.

Table 3.16: Results of reliability of the study

Construct and Items		Corrected Item Total Correlation	Cronbach's if item Deleted	Cronbach's Alpha	No of items	
Values Congruence	VCIU1	.529	.903	.907	16	
	VCIU2	.608	.901			
	VCIU3	.486	.905			
	VCIU4	.622	.901			
	VCIU5	.582	.902			
	VCIU6	.526	.903			
	VCIU7	.445	.906			
	VCIU8	.489	.904			
	VCIO1	.645	.900			
	VCIO2	.689	.898			
	VCIO3	.589	.902			
	VCIO4	.681	.898			
	VCIO5	.636	.900			
	VCIO6	.664	.899			
	VCIO7	.549	.903			
	VCIO8	.656	.899			
PNS	Autonomy Need Satisfaction	PNS1	.304	.575	.607	7
		PNS2	.275	.584		
		PNS3_r	.351	.560		
		PNS4_r	.251	.595		
		PNS5_r	.408	.537		
		PNS6	.363	.560		
		PNS7	.340	.569		
	Competency Needs Satisfaction	PNS8_r	.347	.696	.693	6
		PNS9	.550	.620		
		PNS10	.573	.621		
		PNS11_r	.301	.714		
		PNS12	.479	.639		
		PNS13	.516	.637		
	Relatedness Needs Satisfaction	PNS14_r	.508	.777	.799	8
		PNS15	.470	.783		
		PNS16_r	.644	.753		
		PNS17	.427	.788		
		PNS18_r	.639	.754		
		PNS19	.462	.784		
		PNS20	.371	.796		
		PNS21_r	.550	.770		
Job Involve ment	Jl1	.611	.752	.796	7	
	Jl2	.711	.732			
	Jl3	.653	.742			
	Jl4	.633	.748			

Construct and Items		Corrected Item Total Correlation	Cronbach's if item Deleted	Cronbach's Alpha	No of items	
	JI5	.446	.783			
	JI6	.140	.833			
	JI7	.506	.773			
Organizational Commitment	Affective	AOC8	.430	.729		8
		AOC9	.465	.723		
		AOC10	.339	.746		
		AOC11_r	.200	.767		
		AOC12_r	.588	.697		
		AOC13_r	.638	.686		
		AOC14	.345	.743		
		AOC15_r	.570	.701		
	Continuous	COC16_r	.079	.713		8
		COC17	.409	.630		
		COC18	.524	.600		
		COC19_r	.134	.702		
		COC20	.339	.647		
		COC21	.430	.626		
		COC22	.535	.601		
		COC23	.579	.589		
	Normative	NOC24	.207	.573		8
		NOC25_r	.088	.619		
		NOC26_r	-.068	.661		
		NOC27	.620	.437		
		NOC28	.376	.520		
		NOC29	.662	.422		
NOC30		.602	.449			
NOC31		-.030	.626			
In-role Performance	SVIN-ROLE1	.711	.795		7	
	SVIN-ROLE2	.716	.791			
	SVIN-ROLE3	.718	.788			
	SVIN-ROLE4	.724	.786			
	SVIN-ROLE5	.511	.812			
	SVIN-ROLE6_r	.480	.841			
	SVIN-ROLE7_r	.605	.798			
OCB	OCB (Individuals)	SVOCBI8	.432	.714		7
		SVOCBI9	.515	.691		
		SVOCBI10	.621	.675		
		SVOCBI11	.544	.690		
		SVOCBI12	.573	.676		
		SVOCBI13	.210	.791		
		SVOCBI14	.542	.693		

Construct and Items		Corrected Item Total Correlation	Cronbach's if item Deleted	Cronbach's Alpha	No of items
	OCB (Organization)	SVOCBO15	.277	.667	
		SVOCBO16	.429	.634	
		SVOCBO17_r	.587	.575	
		SVOCBO18_r	.558	.586	
		SVOCBO19_r	.504	.601	
		SVOCBO20	.385	.644	
		SVOCBO21	.044	.737	
				.675	7

3.7.2 Validity

Validity is described as the degree that determines the types of tests to be used (Hair, Black, Babin, Anderson, & Tatham, 2006). Validity is a broader and more difficult topic compared to reliability (Kinnear & Taylor, 1991). Moreover, validity is very important to this study as it is helpful in deciding the methods and measurements used, whether it is cost-effective, and whether it truly measures the idea and construct of the questions. Validity can be divided into two main types, namely construct validity and content validity.

3.7.2.1 Construct Validity

Construct validity refers to the extent to which a measurement instrument measures the theoretical construct that it is designed to measure (Hair et al., 2010). This particular form of validity is the most difficult to establish (Malhotra & Birks, 2007). Construct validity can be divided into convergent validity and discriminant validity.

Convergent validity is the degree to which a construct's items correlate with each other. In other words, high convergent validity occur when the scale items are highly

correlated (Malhotra & Birks, 2007). In this study, convergent validity is established by examining the statistically significant factor loadings on each construct. Standardized loading estimates of 0.5 or higher indicate convergent validity (Hair et al., 2010). Convergent validity was also assessed by examining the average variance extracted (AVE) from the measures. An AVE of 0.5 or more indicates adequate convergent validity (Hair et al., 2010).

Another form of validity is known as discriminant validity (also referred to as divergent validity) which refers to the degree in which a construct is considered to be truly different from other constructs (Hair et al., 2010). This type of validity demonstrates lack of correlation or low correlations between different constructs (Malhotra & Birks, 2007). In other words, high discriminant validity delivers evidence that a construct is able to capture some phenomena that other measures are not capable of (Hair et al., 2010). In the present study, discriminant validity was assessed by comparing the square root of the AVE values with the correlation estimate between constructs. Evidence of discriminant validity can only be provided if the square root of the AVE for a construct is higher than the correlation estimate between that construct and all other constructs. Discriminant validity is achieved if the AVE of a construct is higher than the squared correlation between that particular construct and other constructs (Hair et al., 2010).

3.7.2.2 Content Validity

Content validity addresses the question of whether the full content and scope of the definition is represented in the measure (Neuman, 2000). Apart from that, it is also known as ‘face validity’ because its assessment can be conducted by examining the measure with an eye towards ascertaining the domain being sampled (Churchill & Iacobucci, 2002). The understanding of what is adequate can be made in a number of ways. In this study, in order to ensure that the constructs possess content validity, all of the questions were selected based on the following factors: (a) an extensive literature review, (b) scale items examined by expert judges (academic members of staff) on whether the scale items cover the full domain of the construct being measured, and (c) a pilot test which requires respondents to evaluate the appropriateness of the measuring instruments.

In order to ensure the constructs possess content validity, all questions were selected after doing an extensive literature review and a pilot test which involved 40 respondents to evaluate the appropriateness of the measuring instruments.

3.8 CHAPTER SUMMARY

This chapter provides a detailed explanation on the methodological approach used in the current study. The present study was decided to be positioned within the positivist research paradigm. Research strategies related to quantitative research have been discussed. The present study is a descriptive cross-sectional study that is

conducted based on a deductive approach. A questionnaire survey was used as the main data collection method, whereby its development followed the rigorous procedures recommended by Churchill and Iacobucci (2002). The structural equations modeling was used to test the proposed research model and hypotheses, and each of the steps were discussed. A brief discussion on the issues of validity and reliability was presented in the final part of this chapter. In the next chapter, the results of descriptive data analysis will be further presented and analysed.

CHAPTER 4

RESULTS AND ANALYSIS

4.1 CHAPTER OVERVIEW

This chapter presents the results and analysis of the current study. The content of this chapter is divided into eight sections. In Section 4.2, the descriptive statistics of the respondents are presented, continued with the discussion of survey collection (Section 4.3). Next, the discussion on the descriptive of analysis responses in Section 4.4. In the subsequent section (Section 4.5), the assessment of the measurement model is discussed. Section 4.6 elaborates the assessment of the structural model, while Section 4.7 assesses the mediating effects. In Section 4.8, the overall hypothesis results are presented. This chapter ends with a summary of the chapter in Section 4.9.

4.2 DESCRIPTIVE STATISTICS OF DEMOGRAPHIC BACKGROUND

This section discusses the demographic background of the respondents which takes into account the following information:

- i) the gender of the respondents,
- ii) the age of the respondents,
- iii) the race of the respondents,
- iv) the marital status of the respondents,

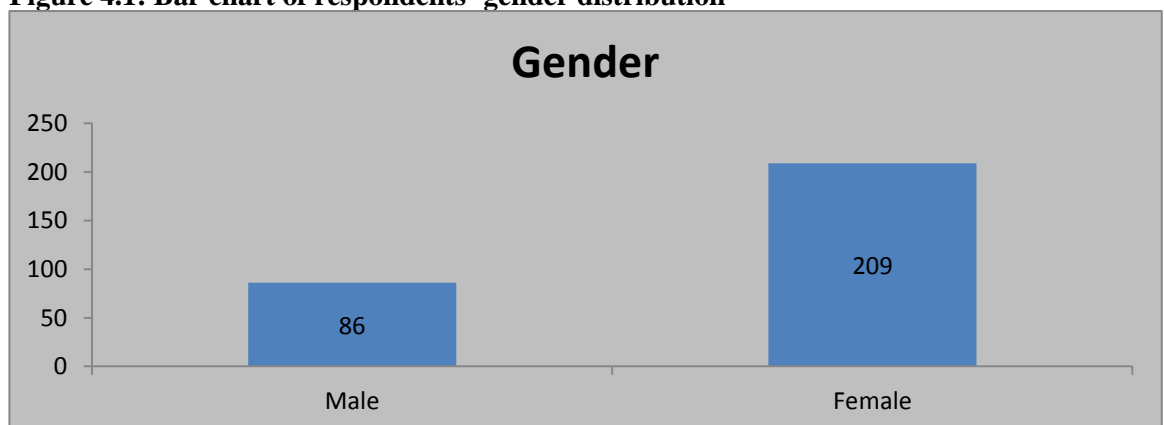
- v) the education level of the respondents,
- vi) the type of organization in which the respondents work,
- vii) the current position of the respondents,
- viii) the extra position of the respondents,
- ix) the job status of the respondents,
- x) the monthly income of the respondents, and finally
- xi) the length of service of the respondents in the current organization

The demographic information mentioned above are presented as follows:

4.2.1 Gender

Figure 4.1 presents the frequencies of respondents according to gender. As can be seen in the figure, a total of 86 (29.2%) male respondents and 209 (70.8%) female respondents participated in this study. This is consistent with the distribution of males and females in education, which is known to be dominated by females.

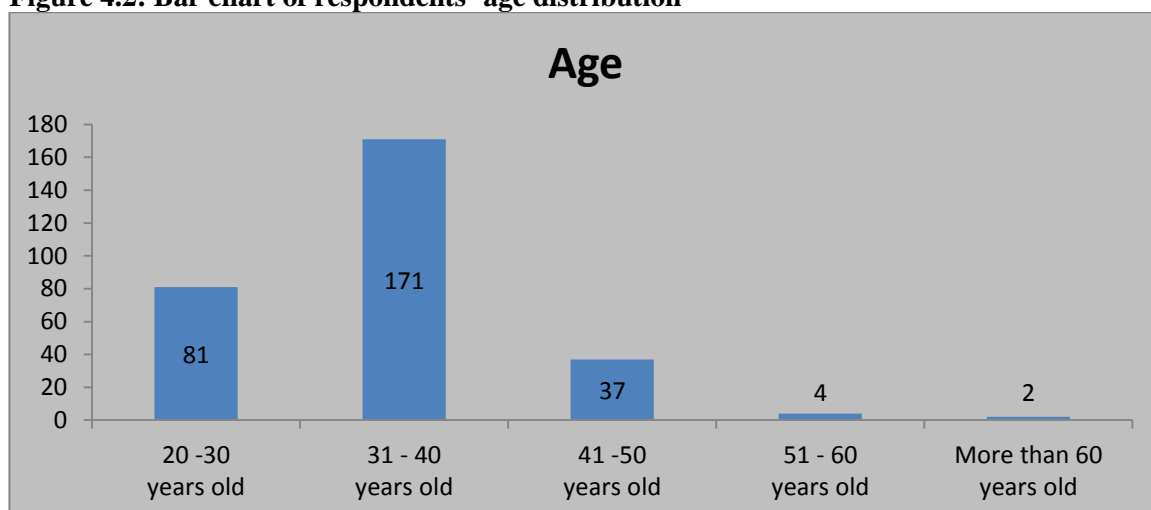
Figure 4.1: Bar chart of respondents' gender distribution



4.2.2 Age

Figure 4.2 shows that most of the respondents' ages range from 31 to 40 years old. This group consists of 171 respondents which accounts for 58% of the sample. The second and third largest age group is consists of respondents in the age group of 20 to 30 years old and 41 to 50 years old respectively. There re 81 respondents (27.5%) in the age range of 20 to 30 years old and 37 respondents (12.5%) in the age group 41 to 50 years old. Only 4 (1.4%) and 2 (0.7%) respondents are still working despite being in the ages between 51 to 60 years old and more than 60 years old respectively.

Figure 4.2: Bar chart of respondents' age distribution

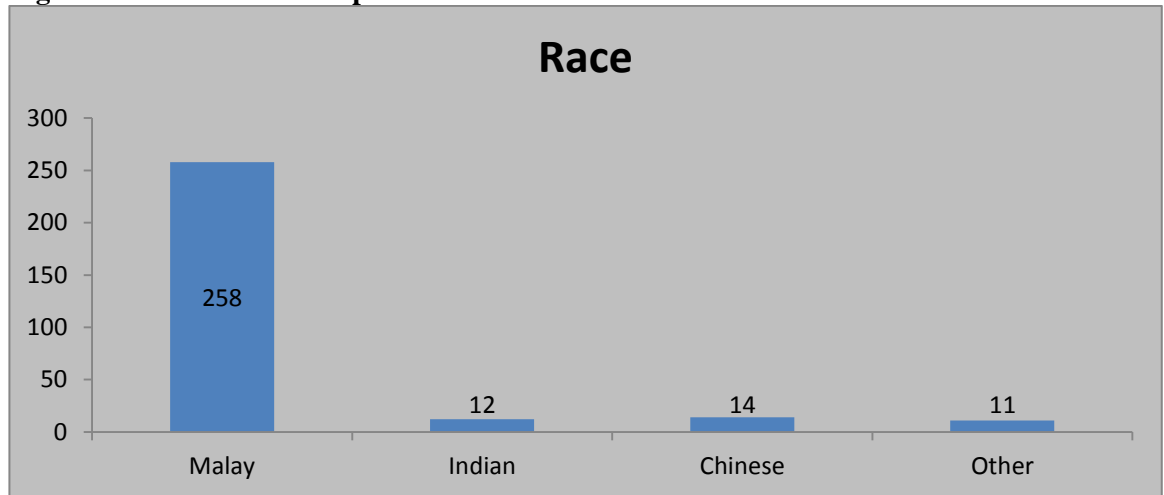


4.2.3 Race

Figure 4.3 represents the frequencies of respondents according to the category of race. There are a total of 258 (87.5%) Malay respondents that dominate this study.

Meanwhile, the rest of the respondents are Indian, Chinese and other races with the amount 12 (4.1%), 14 (4.7%), and 11(3.7%) respectively.

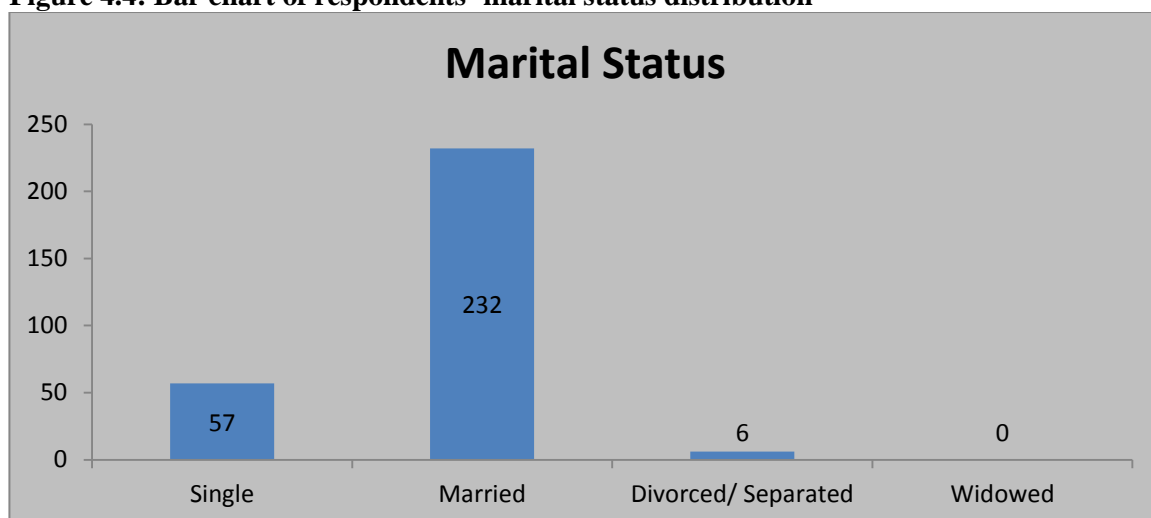
Figure 4.3: Bar chart of respondents' race distribution



4.2.4 Marital Status

Figure 4.4 presents the distribution of respondents marital status. 232 (78.6%) respondents are married. A total of 57 (19.3%) samples were collected from single respondents. Only 6 out of 295 samples reported being divorced or separated.

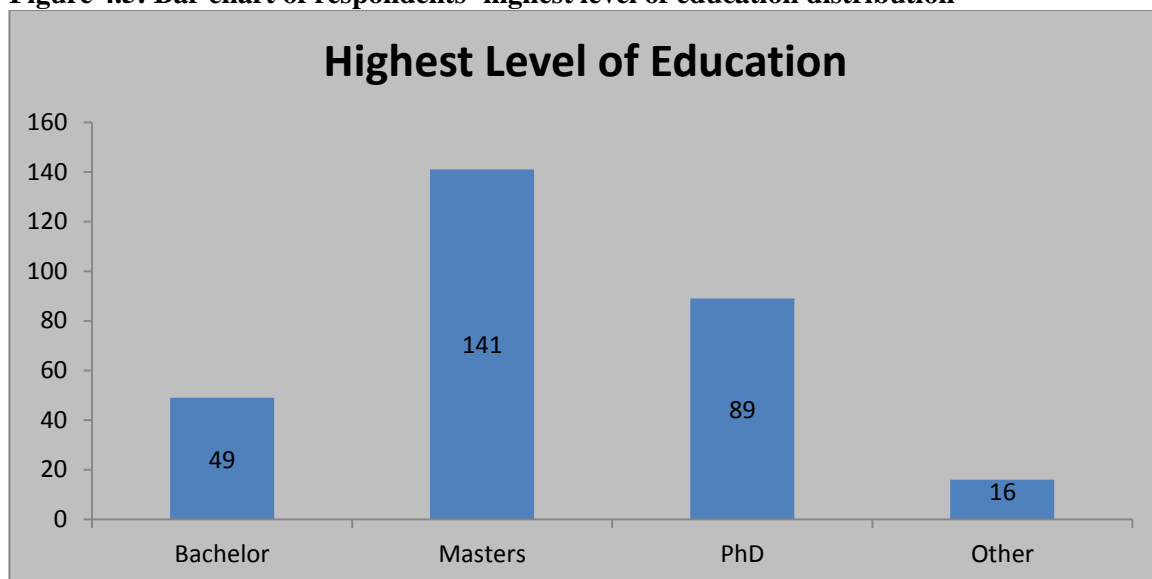
Figure 4.4: Bar chart of respondents' marital status distribution



4.2.5 Education Level

In Figure 4.5, it can be observed that 47.8% or 141 respondents possess a masters degree as their highest level of education. The second highest amount is those who possess a PhD, which accounts for 30.2% or 89 respondents. Those with a bachelor's degree make up the third largest group in the sample distribution. There are a total of 49 (16.6%) academicians with a bachelor's degree qualification in higher education institutions in Malaysia. Those with other qualifications account for only 5.4% or 16 respondents and hold professional certificates.

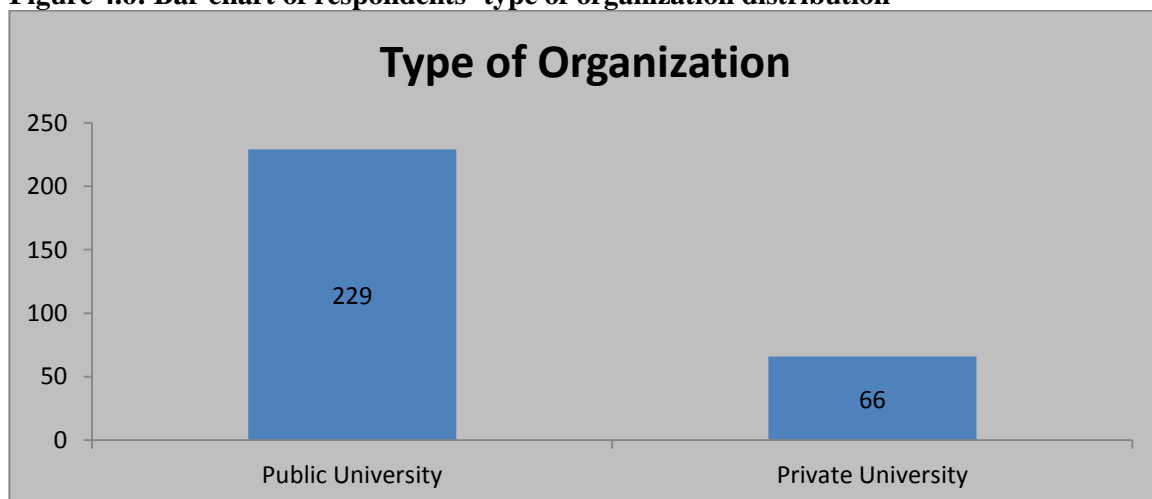
Figure 4.5: Bar chart of respondents' highest level of education distribution



4.2.6 Type of Organization

In Figure 4.6, 71.6% or 229 from the total sample respondents are from public universities or public institutions. It is obvious that the rest of the respondents come from private universities or institutions. They account for 22.4% (66 respondents) of the total respondents.

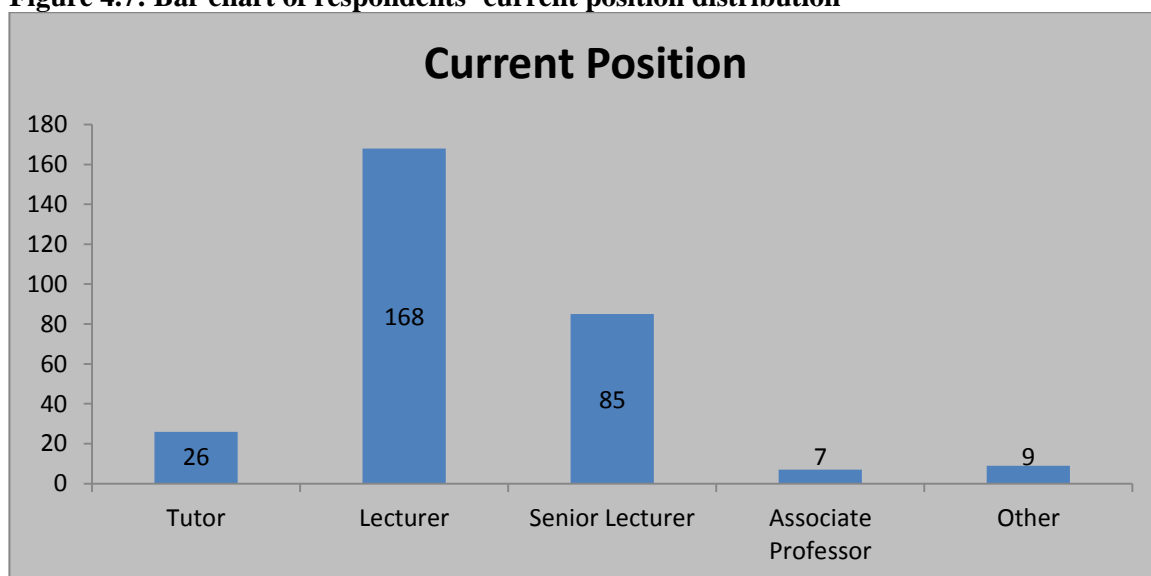
Figure 4.6: Bar chart of respondents' type of organization distribution



4.2.7 Current Position

Figure 4.7 shows that more than half, (56.9% or 168 respondents) hold the position of lecturer or equivalent in the organization. This is followed by 85 (28%) respondents who hold the position as senior lecturer or equivalent. There are 26 respondents that hold the tutor post or equivalent, which represents 8.8% of the total respondents. Those respondents holding Associate Professor/Professor or equivalent and other positions share almost equal numbers, which are 2.4% and 3.1% respectively.

Figure 4.7: Bar chart of respondents' current position distribution

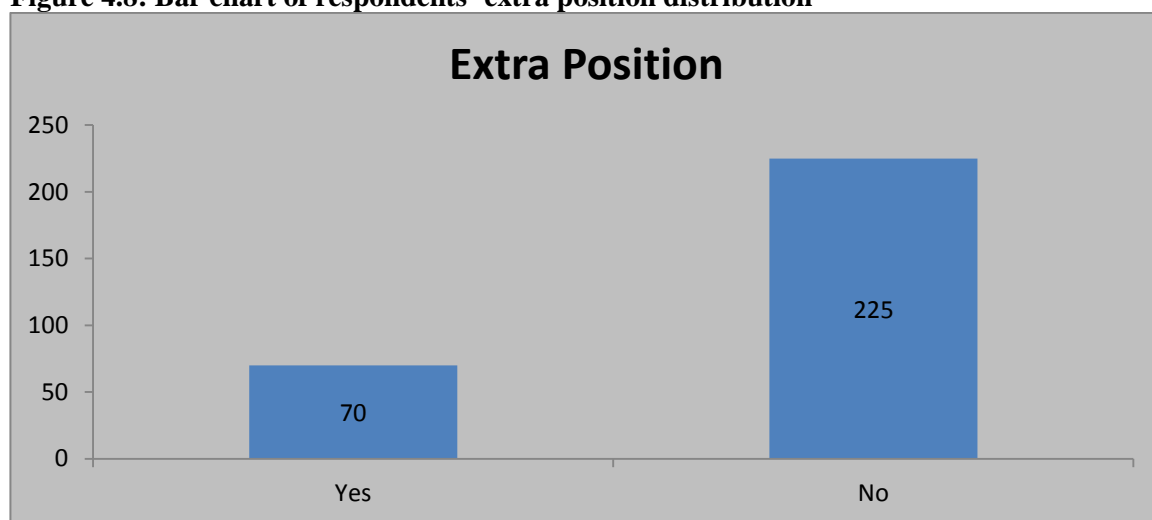


4.2.8 Extra Position

As illustrated in Figure 4.8, most of the respondents (225 or 76.3%) have no extra position in their institution. However, almost 24% (70 out of 295) respondents hold

an extra position in their university such as programme director, head of faculty or other positions.

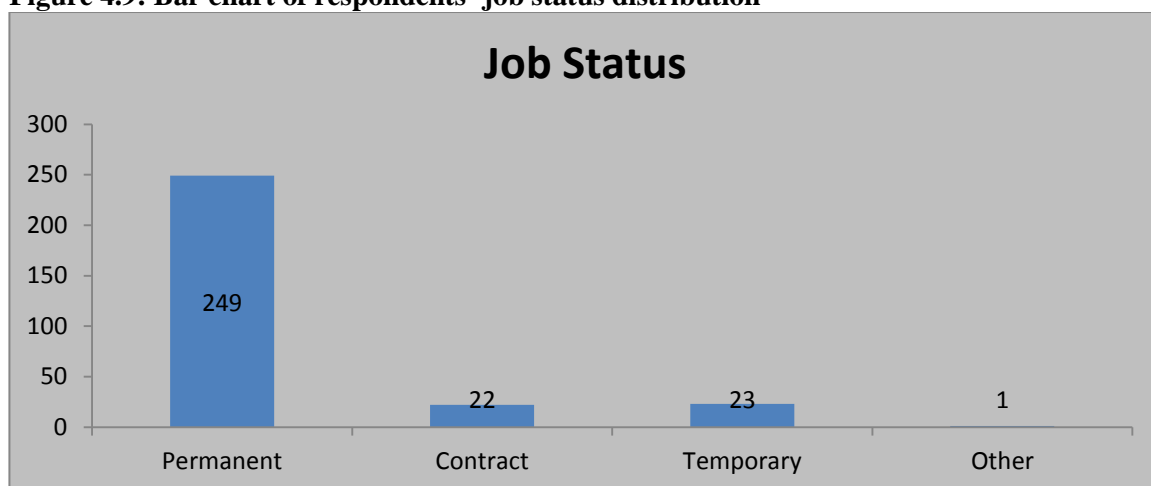
Figure 4.8: Bar chart of respondents' extra position distribution



4.2.9 Job Status

As illustrated in Figure 4.9, most of the respondents represented by the amount of 249 (84.4%) can be observed hold permanent title in their institution. There were 22 and 23 respondents hold title contract and temporary respectively.

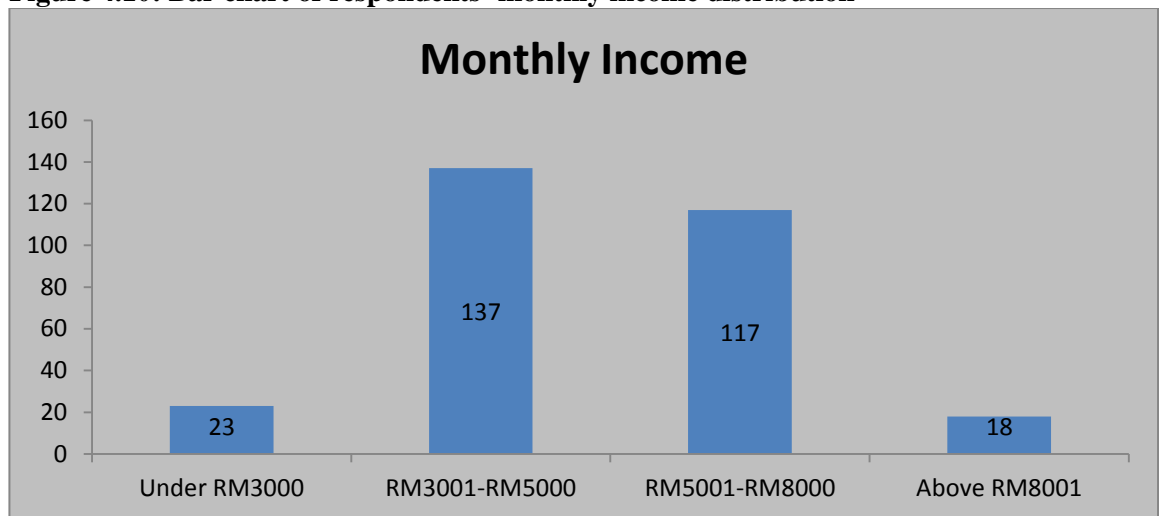
Figure 4.9: Bar chart of respondents' job status distribution



4.2.10 Monthly Income

According to Figure 4.10, 137 respondents (46.4%) earn a monthly income ranging from RM3001 to RM5000. 117 respondents (39.7%) receive a monthly income ranging from RM5001 to RM8000, while those who earn a monthly income of under RM3000 and above RM8001 are represented by 23 (7.8%) and 18 (6.1%) respondents respectively.

Figure 4.10: Bar chart of respondents' monthly income distribution



4.2.11 Length of Service

From Figure 4.11, it can be observed that the percentage of respondents who have worked in the current organization for less than 5 years is similar to those with 5 to 10 years of service which is 129 (43.7%) respondents each. The third largest group involves the respondents who have a worked in the organization for 11 to 15 years, which makes up a total of 32 (10.8%) respondents. Only 5 (1.7%) respondents had a length of service of more than 15 years.

Figure 4.11: Bar chart of respondent's length of service distribution

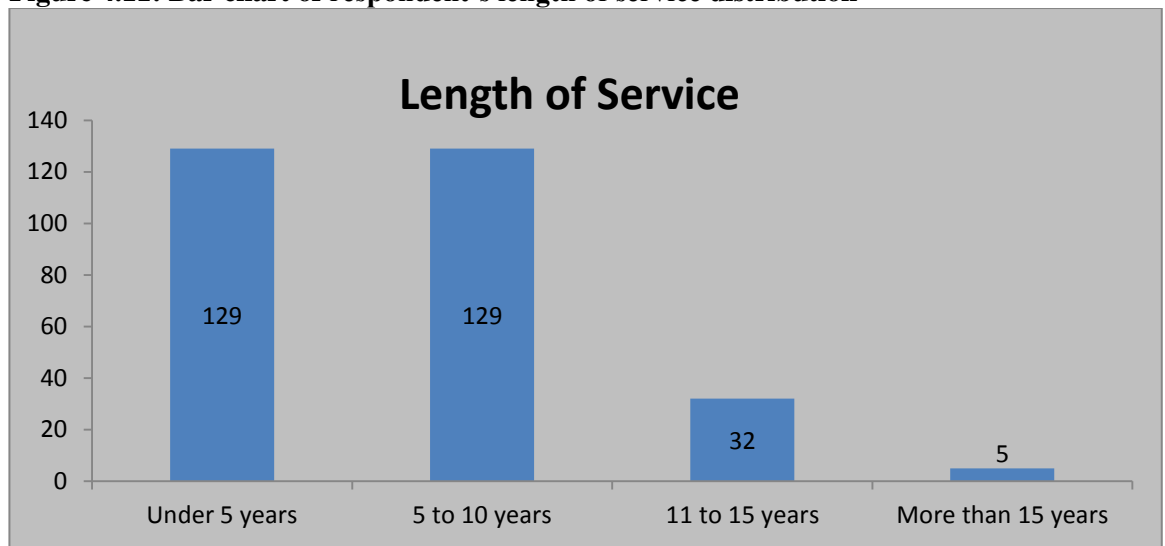


Table 4.1: Overall demographic of survey respondents

Demographic Variable	Category	Sample: (n = 295)		
		Frequency	Percentage (%)	Total
Gender	Male	86	29.2%	86
	Female	209	70.8%	295
Age	20 -30	81	27.5%	81
	31 - 40	171	58%	252
	41 -50	37	12.5%	289
	51 - 60	4	1.4%	293
	More than 60	2	0.7%	295
Race	Malay	258	87.5%	258
	Indian	12	4.1%	270
	Chinese	14	4.7%	284
	Other	11	3.7%	295
Marital Status	Single	57	19.3%	57
	Married	232	78.6%	289
	Divorced/ Separated	6	2.0%	295
	Widowed	0	0%	295
Highest Level of Education	Bachelor	49	16.6%	49
	Masters	141	47.8%	190
	PhD	89	30.2%	279
	Other	16	5.4%	295
Type of Organization	Public University	229	77.6%	229
	Private University	66	22.4%	295
Current Position	Tutor	26	8.8%	26
	Lecturer	168	56.9%	194
	Senior Lecturer	85	28.8%	279
	Associate Professor	7	2.4%	286
	Other	9	3.1%	295
Extra Position	Yes	70	23.73%	70
	No	225	76.27%	295
Job Status	Permanent	249	84.4%	249
	Contract	22	7.5%	271
	Temporary	23	7.8%	294
	Other	1	0.3%	295
Monthly Income	Under RM3000	23	7.8%	23
	RM3001-RM5000	137	46.4%	160
	RM5001-RM8000	117	39.7%	277
	Above RM8001	18	6.1%	295
Length of service in current institution	Under 5 years	129	43.7%	129
	5 to 10 years	129	43.7%	258
	11 to 15 years	32	10.8%	290
	More than 15 years	5	1.7%	295

4.3 COLLECTION OF SURVEY QUESTIONNAIRES

In this study, 600 questionnaires were distributed to academicians in both the public and private universities within Kuala Lumpur and Selangor since most universities in Malaysia are located in that area. The data collection process was conducted over a period of four months using personally administered questionnaires. A total of 320 questionnaires were returned from the employees, with 254 samples received from public universities and 66 samples from private universities. The response rate is more than half with a percentage of 53%. However, only a total of 295 questionnaires could be used for analysis, giving an effective response rate of around 50%. Fortunately, this response rate is considered acceptable because Baruch and Holtom (2008) asserts that the appropriate average response rate for surveys in management and behavioural research is 52.7%. 25 survey questionnaires were discarded because there was no feedback received from the supervisors. The matched supervisors account for a total of 295 respondents that are represented by the following amount: public universities (N= 229) and private universities (N= 66).

The biggest challenge for this study was to convince the supervisors to participate in the survey because they refused to be involved or they had tight schedules. They were responsible to monitor at least ten subordinates or more and felt that it was very difficult and time consuming to rate all their subordinates. This problem did not occur during the pilot test and some initiatives were taken to increase the response rate by persuading the supervisors to participate in this survey. Follow ups were made constantly, including providing some souvenirs for the supervisors. The total

number of usable survey questionnaires was found to be sufficient for further analysis. As shown in Table 4.2 below, the net number of usable questionnaires is 295.

Table 4.2: Number of usable survey questionnaires

Description	Public Universities	Private Universities	Total
Set A (full questionnaire for employees)			
Surveys Distributed	300	300	600
Surveys Received	254	66	320
Set B (full questionnaire for immediate supervisor)			
Surveys Received	229	66	295
Net Number Usable	229	66	295

4.4 DESCRIPTIVE ANALYSIS OF RESPONSES

The previous section reported on the demographic characteristics of the survey respondents. This section will focus on how the respondents answered the survey questions which are related to the constructs of the research model (P-O Fit, PNS, employee attitudes, and employee outcomes). Responses to all the items were made on a seven-point Likert scale ranging from 1 = ‘Strongly disagree’ to 7 = ‘Strongly agree’.

Items that were negatively stated were found to be reverse coded. These items include AOC11_r, AOC12_r, AOC13_r, AOC15_r, COC16_r, COC19_r, NOC25_r, NOC26_r, PNS3_r, PNS4_r, PNS5_r, PNS8_r, PNS11_r, PNS14_r, PNS16_r, PNS18_r, PNS21_r, in-role16_r, OCBO22_r, OCBO23_r, SVin-role6_r, Svin-role7_r, SVOCBO17_r, SVOCBO18_r and SVOCBO19_r. Detailed descriptions of the items, percentage data for each scale, means, and standard deviations are reported

in the table below. The following descriptive discussions are based on the means scores of each construct and item.

4.4.1 Values Congruence

The values congruence scale was measured with 16 items on a seven point Likert scale ranging from ‘1’ (strongly unimportant) to ‘7’ (strongly important). A descriptive analysis for values congruence is presented in Table 4.3 below. The results show that the mean of values congruence is 5.95, while the standard deviation is 0.68. This indicates that the respondents fit well with their organizations. The standard deviation shows that there is less variation in the respondents’ answers towards questions related to values congruence.

Table 4.3: Descriptive analysis for values congruence

	N	Minimum	Maximum	Mean	Std. Deviation
ValuesCongruence	295	2.88	7.00	5.95	0.68
Valid N (listwise)	295				

4.4.2 PNS (PNS)

The PNS scale was measured with three different constructs which was divided into 21 items. A seven point Likert scale ranging from ‘1’ (strongly disagree) to ‘7’ (strongly agree) was also used in this measurement. A descriptive analysis for PNS is presented in Table 4.4 below. According to the results, the respondents slightly agree with the need for autonomy (PNS_autonomy: mean = 4.69, SD 0.67) as well as the

need for competency (PNS_competency: mean = 5.13, SD = 0.78). They also agree to the need for relatedness, with a mean of 5.28 and standard deviation of 0.90.

Table 4.4: Descriptive analysis for PNS (PNS)

	N	Minimum	Maximum	Mean	Std. Deviation
PNS_autonomy	295	2.71	6.71	4.69	0.67
PNS_competency	295	1.83	7.00	5.13	0.78
PNS_relatedness	295	1.75	7.00	5.28	0.90
Valid N (listwise)	295				

On average, the needs of autonomy, competency, and relatedness were indicated to be important for the respondents. The mean for autonomy need satisfaction above 4 which show that most of the respondents agreed on its importance. The results for need for competency and relatedness indicate that the respondents have an interest in their well-being. All the items measuring PNS have standard deviations of less than 1. This indicates that there is a small amount of variation in the respondents' answers to these questions.

4.4.3 Job Involvement

The job involvement scale was measured with 7 items on a seven point Likert scale ranging from '1' (strongly disagree) to '7' (strongly agree). A descriptive analysis for job involvement is presented in Table 4.5 below. The results show that the respondents slightly agree with the importance of job involvement, with a mean of 4.8 and standard deviation of 0.88.

Table 4.5: Descriptive analysis for job involvement

	N	Minimum	Maximum	Mean	Std. Deviation
Job_Involvement	295	2.43	7.00	4.80	0.88
Valid N (listwise)	295				

Table 4.5 shows that the mean of job involvement is above the midpoint of the scale which is 4. It indicates that the respondents were very involved in their jobs. The variation in the answers for all items related to the measure of job involvement was small with a standard deviation value of less than 1.

4.4.4 Organizational Commitment

The organizational commitment scale was measured with three constructs, namely the affective, continuous, and normative organizational commitment scales. All 24 items were enquired on a seven point Likert scale ranging from ‘1’ (strongly disagree) to ‘7’ (strongly agree). A descriptive analysis for organizational commitment is presented in Table 4.6 below. The results show that the respondents slightly agree with affective organizational commitment (affective_OC: mean = 4.71, SD = 0.83). Similar results were obtained for continuous organizational commitment (continuous_OC: mean = 4.61, SD = 0.80) and normative organizational commitment (normative_OC: mean = 4.29, SD = 0.66).

Table 4.6: Descriptive analysis for organizational commitment

	N	Minimum	Maximum	Mean	Std. Deviation
Affective_OC	295	2.63	7.00	4.71	0.83
Continuous_OC	295	2.13	6.88	4.61	0.80

Normative_OC	295	1.88	6.13	4.29	0.66
Valid N (listwise)	295				

The findings presented in Table 4.6 shows that the mean for all the measuring items of affective, continuous, and normative organizational commitment are above 4. This shows that the respondents are committed to their organizations. The standard deviations show low variations in the answers for all the items used to measure organization's commitment, where all the items have standard deviation values of less than 1.

4.4.5 In-role Performance and OCB.

The supervisor's rating was used for in-role performance and OCB. The scales were measured with 21 items on a seven point Likert scale ranging from '1' (strongly disagree) to '7' (strongly agree). A descriptive analysis for in-role performance and OCB are presented in Table 4.7 below. The results show that the supervisors agree that their subordinates performed well in completing their task as a measure of their in-role performance. Supervisor's ratings on their subordinates' OCB have an average score of more than 5. The standard deviations of the three items have a value of less than 1.

Table 4.7: Descriptive analysis for in-role performance and OCB

	N	Minimum	Maximum	Mean	Std. Deviation
SV_in-role_performance	295	3.71	7.00	5.94	0.72
SV_OCBI	295	2.86	7.00	5.04	0.83
SV_OCBO	295	3.43	7.00	5.50	0.78

4.5 MEASUREMENT MODEL ANALYSIS

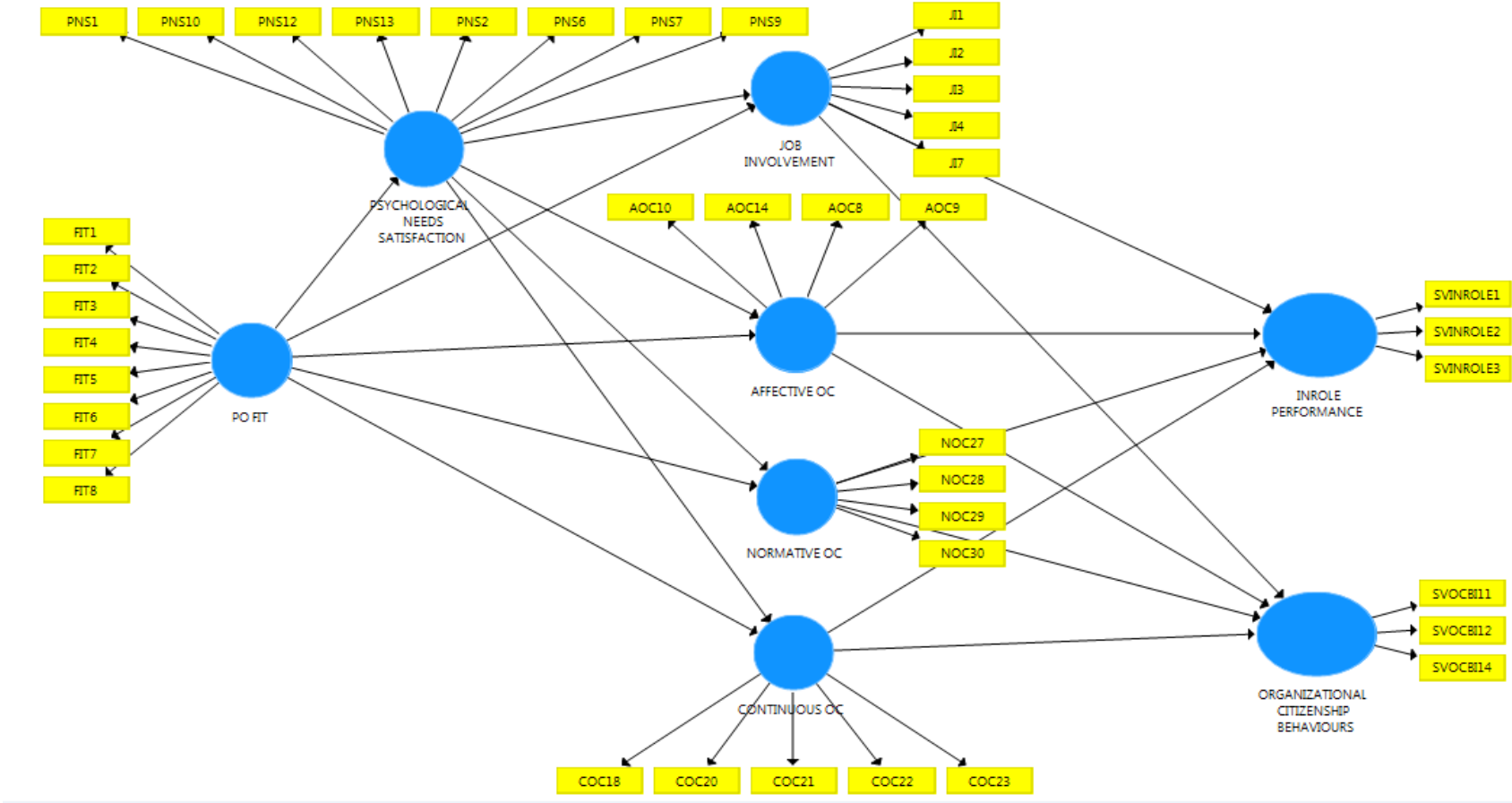
This section discusses the analysis of the measurement model. As explained in the previous chapter, the measurement has to be assessed before conducting the structural model analysis. The measurement model analysis focuses on identifying two items described as follows: (i) the relationship between constructs and items, and (ii) the correlational relationships between constructs.

A pretest on the measurement model was conducted prior to actual analysis in order to ensure the appropriateness of the data and the outcome of the pretest lead to the omission of several indicators. All the indicators presented in Table 4.8 were omitted from the final measurement model evaluation due to several factors which include: (i) low factor loading, and (ii) lack of convergent validity and discriminant validity as a result of low AVE. Hair, Hult, Ringle, and Sarstedt (2014) suggested 0.708 as an appropriate threshold value for loadings. It was further advocated that the removal of indicators can improve AVE, which in turn, enhances the assessment on convergent and discriminant validity. The framework was adjusted and the revised measurement model reflects the omission of indicators, as can be seen in Table 4.8.

Table 4.8: The omitted indicators

Item	Measurement	
PNS3_r, PNS4_r, PNS5_r, PNS8_r, PNS11_r, PNS14_r, PNS15, PNS16_r, PNS17, PNS18_r, PNS19, PNS20 and PNS21_r. (13 items)	PNS	
JI5 and JI6 (2 item)	Job Involvement	
AOC11_r, AOC12_r, AOC13_r and AOC15_r. (4 item)	Affective Organizational Commitment	Organizational Commitment
COC16_r, COC17 and COC19_r. (3 item)	Continuous Organizational Commitment	
NOC24, NOC25_r, NOC26_r and NOC31. (4 item)	Normative Organizational Commitment	
SVin-role4, SVin-role5, SVin-role6_r and SVin-role7_r. (4 item)	In-role Performance	
SVOCBI8, SVOCBI9 and SVOCBI10. (3 item)	OCB	
SVOCBO15, SVOCBO16, SVOCBO17_r, SVOCBO18_r, SVOCBO19_r, SVOCBO20 and SVOCBO21. (7 item)		

Figure 4.12: The measurement model



4.5.1 Assessment Construct Reliability

Cronbach's Alpha is utilized to evaluate construct reliability. The Cronbach's Alpha assumes that all indicators are equally reliable, which indicates that the loading of indicators on a construct must be equal. However, Hair et al. (2014, p.101) emphasized that the priority of PLS-SEM is *individual indicator's reliability*, which further suggests that Cronbach's Alpha may not be a proper measure of reliability. Hence, Hair et al. (2014) recommend the use of an alternative measure of internal consistency known as Composite Reliability, which is able to measure an individual indicator's reliability. Table 4.9 illustrates the composite reliability of each construct. The composite reliability values for each construct are 0.919 (P-O Fit), 0.890 (PNS), 0.882 (Job Involvement), 0.843 (Affective Organizational Commitment), 0.874 (Normative Organizational Commitment), 0.843 (Continuous Organizational Commitment), 0.959 (In-role Performance), and 0.856 (OCB), thus showing that these constructs have a high level of internal consistency.

4.5.2 Assessment of Convergent Validity

Convergent validity is described as "the extent to which a measure (indicators) correlates positively with alternative measures (indicators) of the same construct" (Hair et al., 2014). In a situation where the indicators are in a reflective form of relationship with a construct, or in other words, when several indicators are used to measure the same construct, these indicators are known to share a high proportion of

variance or convergence among each other (Hair et al., 2014, p.102). Assessment of convergent validity can only be used on item- construct relationship which are reflective in nature.

Average Variance Extracted (AVE) and Factor Loadings are considered as the common measures to assess convergent validity (Hair et al., 2010). Table 4.9 depicts the assessment of convergent validity for several constructs including P-O Fit, PNS, job involvement, affective organizational commitment, continuous commitment, normative commitment, in-role performance, and OCB. Hair et al. (2014) further assert that an AVE with a value of 0.5 or higher tends to indicate that a construct explains half or more than half of the variance of its indicators (p.103). The AVE value of all constructs are higher than 0.5 which indicates their validity as illustrated in Table 4.9.

Factor loadings can also be used to assess convergent validity. Hair et al. (2014) proposed that an indicator's outer loadings should be higher than 0.708. The underlying reason for this threshold value is that a value of 0.5, which represents the communality of an item, can be obtained by squaring the factor loadings with a score of 0.708. This communality value represents the extent to which the variation in an item is explained by the construct and is referred to as variance extracted (Hair et al., 2014, p.103). A communality value of 0.5 or higher indicates that 50% or more of the variance in an item is explained by the construct. This interpretation is identical to the interpretation conducted using AVE.

Table 4.9 represents the factor loadings of each indicator of a construct. In this case, all except a few indicators failed to meet the threshold value of 0.708. The indicators with lower loading is retained because convergent validity is considered achieved for each of the constructs. Hair et al. (2014) stressed that indicators with outer loadings between 0.4 and 0.7 should be considered for deletion, provided that it will lead to an increase in composite reliability and AVE above the recommended threshold value (p.113). In this study, composite reliability was achieved and AVE was found to be above the threshold value. Therefore, the indicators FIT1, PNS1, PNS2, PNS6, PNS12, NOC28, COC18, and COC202 were retained.

Table 4.9: Quality criteria of constructs (N=295)

First Order Constructs	Item	Loadings	CR	AVE	Convergent Validity (AVE > 0.5)
P-O Fit (P-O Fit)	FIT 1	0.602	0.919	0.589	Yes
	FIT 2	0.810			
	FIT 3	0.806			
	FIT 4	0.780			
	FIT 5	0.731			
	FIT 6	0.790			
	FIT 7	0.744			
	FIT 8	0.853			
PNS	PNS 1	0.658	0.890	0.505	Yes
	PNS 2	0.664			
	PNS 6	0.688			
	PNS 7	0.775			
	PNS 9	0.768			
	PNS 10	0.731			
	PNS 12	0.677			
	PNS 13	0.714			
Job Involvement	JI 1	0.781	0.882	0.601	Yes
	JI 2	0.886			
	JI 3	0.763			

	JI 4	0.716			
	JI 7	0.719			
OC (Organizational Commitment)					
Affective OC	AOC 10	0.751			
	AOC 14	0.697	0.843	0.575	Yes
	AOC 8	0.823			
	AOC 9	0.755			
Normative OC	NOC 27	0.866			
	NOC 28	0.582	0.874	0.640	Yes
	NOC 29	0.843			
	NOC 30	0.872			
Continuous OC	COC 18	0.663			
	COC 20	0.633			
	COC 21	0.737	0.843	0.520	Yes
	COC 22	0.775			
	COC23	0.785			
In-role Performance	SVIN-ROLE 1	0.953			
	SVIN-ROLE 2	0.961	0.959	0.887	Yes
	SVIN-ROLE 3	0.911			
OCB (OCB)	SVOCBI 11	0.840	0.856	0.666	Yes

	SVOCBI 12	0.849
	SVOCBI 14	0.755
<hr/>		
Criteria: Composite Reliability > 0.708 (Hair et al., 2010), (Hair et al., 2014)		
AVE > 0.5 (Hair et al., 2010), (Hair et al., 2014)		

4.5.3 Assessment of Discriminant Validity

Discriminant validity analysis is conducted to ensure that individual constructs are truly different from each other. In the context of this study, discriminant analysis was conducted for the purpose of determining that P-O Fit, PNS, job involvement, organizational commitment, in-role performance, and OCB are distinctly different from each other empirically, despite the different definition of each construct both conceptually and theoretically.

Table 4.10 describes a method of discriminant analysis by mean of comparing the cross loadings between constructs. It is important to note that each scale item should load high on its own construct and low on other constructs, particularly when using the cross loadings to assess discriminant validity. As presented in Table 4.10, all items are observed to load high on its own construct but low on the other constructs, thus proving each one of these constructs is distinctly different from each other

Table 4.10: Loading and cross loading of constructs to assess discriminant validity

	Affective	Continuous	In-role	Job	Normative	OCB	P-O FIT	PNS
	OC	OC	Performance	Involvement	OC			
AOC10	0.751	0.191	-0.005	0.419	0.330	-0.013	0.155	0.295
AOC14	0.697	0.211	-0.018	0.289	0.262	-0.058	0.193	0.370
AOC8	0.823	0.309	-0.042	0.315	0.427	-0.073	0.239	0.375
AOC9	0.755	0.219	0.019	0.332	0.333	-0.005	0.276	0.269
COC18	0.249	0.663	-0.110	0.234	0.191	-0.075	0.106	0.190
COC20	0.179	0.633	-0.035	0.276	0.094	-0.003	0.019	0.279
COC21	0.194	0.737	-0.113	0.204	0.202	-0.083	-0.022	0.125
COC22	0.177	0.775	-0.192	0.306	0.277	-0.127	0.049	0.121
COC23	0.306	0.785	-0.073	0.273	0.343	-0.026	0.081	0.256
FIT1	0.075	-0.006	0.014	0.012	0.113	-0.042	0.602	0.180
FIT2	0.202	0.044	-0.033	0.076	0.093	-0.097	0.810	0.187
FIT3	0.284	0.164	-0.007	0.144	0.208	-0.055	0.806	0.173
FIT4	0.209	0.041	0.047	0.065	0.073	-0.032	0.780	0.121
FIT5	0.165	0.006	0.039	0.111	0.111	-0.033	0.731	0.127
FIT6	0.260	0.028	-0.012	0.109	0.250	-0.039	0.790	0.217
FIT7	0.228	-0.040	0.093	0.125	0.117	-0.021	0.744	0.215
FIT8	0.248	0.112	-0.012	0.198	0.198	-0.107	0.853	0.256
JI1	0.256	0.217	-0.050	0.781	0.309	-0.115	0.105	0.284
JI2	0.372	0.334	-0.061	0.886	0.354	-0.073	0.175	0.319
JI3	0.354	0.299	-0.001	0.763	0.372	-0.109	0.151	0.226
JI4	0.271	0.206	0.041	0.716	0.269	-0.050	0.003	0.248
JI7	0.426	0.332	-0.044	0.719	0.295	-0.034	0.121	0.357

NOC27	0.362	0.277	-0.003	0.452	0.866	-0.107	0.199	0.381
NOC28	0.209	0.232	-0.057	0.190	0.582	-0.044	0.097	0.090
NOC29	0.361	0.220	-0.085	0.288	0.843	-0.115	0.116	0.295
NOC30	0.454	0.279	-0.090	0.327	0.872	-0.120	0.211	0.316
PNS1	0.388	0.109	0.065	0.191	0.354	-0.023	0.406	0.658
PNS10	0.311	0.215	0.062	0.255	0.228	0.080	0.107	0.731
PNS12	0.256	0.234	0.085	0.295	0.193	0.053	0.111	0.677
PNS13	0.212	0.148	0.123	0.288	0.220	0.092	0.023	0.714
PNS2	0.398	0.178	0.080	0.231	0.234	0.014	0.331	0.664
PNS6	0.261	0.227	0.038	0.293	0.299	0.008	0.120	0.688
PNS7	0.294	0.272	-0.010	0.339	0.296	-0.055	0.115	0.775
PNS9	0.314	0.215	0.021	0.270	0.243	0.024	0.088	0.768
SVIN-ROLE1	-0.022	-0.148	0.953	-0.047	-0.063	0.533	0.002	0.081
SVIN-ROLE2	-0.021	-0.140	0.961	-0.035	-0.073	0.534	0.019	0.075
SVIN-ROLE3	-0.007	-0.104	0.911	-0.018	-0.056	0.565	0.027	0.065
SVOCBI11	-0.050	-0.104	0.421	-0.103	-0.110	0.817	-0.033	0.025
SVOCBI12	-0.050	-0.078	0.450	-0.106	-0.097	0.825	-0.044	-0.004
SVOCBI14	-0.031	-0.017	0.543	-0.028	-0.106	0.815	-0.103	0.045

The second method of assessing discriminant validity is based on Fornell and Larcker's (1981) criterion. The test can be further assessed by comparing the square root of the AVE values for two factors against the correlation estimate (r) between the same factors. The criteria can be fulfilled given that the square root of the AVE shown in the diagonals is greater than the values in the row and columns on that particular construct. Hence, the measures discriminant factors ($\sqrt{\text{AVE}} > r$) can be concluded.

Table 4.11 presents the assessment of discriminant validity using the Fornell and Larcker criterion. The square root of AVE of each construct is shown to be larger than the correlation estimate of the factors. This indicates that all the constructs exhibit discriminant validity and are distinct from one another.

Table 4.11: Fornell and Larcker criterion for discriminant validity

Constructs	Affective OC	Continuous OC	In-role Performance	Job Involvement	Normative OC	OCB	P-O Fit	PNS
Affective OC	0.758							
Continuous OC	0.312	0.721						
In-role Performance	-0.018	-0.141	0.942					
Job Involvement	0.441	0.365	-0.037	0.775				
Normative OC	0.449	0.309	-0.068	0.413	0.800			
OCB	-0.054	-0.082	0.574	-0.096	-0.128	0.819		
P-O Fit	0.287	0.07	0.016	0.150	0.204	-0.073	0.767	
PNS	0.438	0.281	0.079	0.379	0.371	0.028	0.247	0.711

Note: Diagonals represent the square root of the AVE while the off-diagonals represent the correlations

The third method of assessing discriminant validity is using the Heterotrait-Monotrait criterion taken from Henseler et al. (2014). With this criterion, HTMT inference scores ranging between -1 to 1 ($-1 < \text{HTMT} < 1$) is proposed to indicate that the two construct are distinct. Table 4.12 further illustrates the HTMT scores for the constructs of this study, which is are within the range of -1 to 1, thus indicating that discriminant validity has been established.

Table 4.12: Heterotrait Monotrait (HTMT) criterion for discriminant validity

	Affective	Continuous	In-role	Job	Normative	OCB	P-O Fit	PNS
	OC	OC	Performance	Involvement	OC			
Affective OC	-							
Continuous OC	0.397	-						
In-role Performance	0.040	0.171	-					
Job Involvement	0.555	0.441	0.061	-				
Normative OC	0.546	0.395	0.085	0.474	-			
OCB	0.078	0.129	0.687	0.128	0.152	-		
P-O Fit	0.328	0.127	0.051	0.171	0.215	0.099	-	
PNS	0.525	0.336	0.097	0.439	0.394	0.087	0.259	-
Criteria: HTMT inference (-1 < HTMT < 1)								

4.5.4 The Overall Measurement Model Evaluation

The purpose of the measurement model assessment is to evaluate the relationship between the indicators and the constructs, including identifying the correlational relationship between constructs to ensure that each of the constructs in the study is distinct from the other. Three assessments were carried out which is stated as follows: (i) assessment of construct reliability, (ii) assessment of convergent validity, and (iii) assessment of discriminant validity. As shown earlier in Table 4.9, all the constructs successfully met the minimum threshold criterion for assessment of construct reliability (Composite reliability score > 0.708).

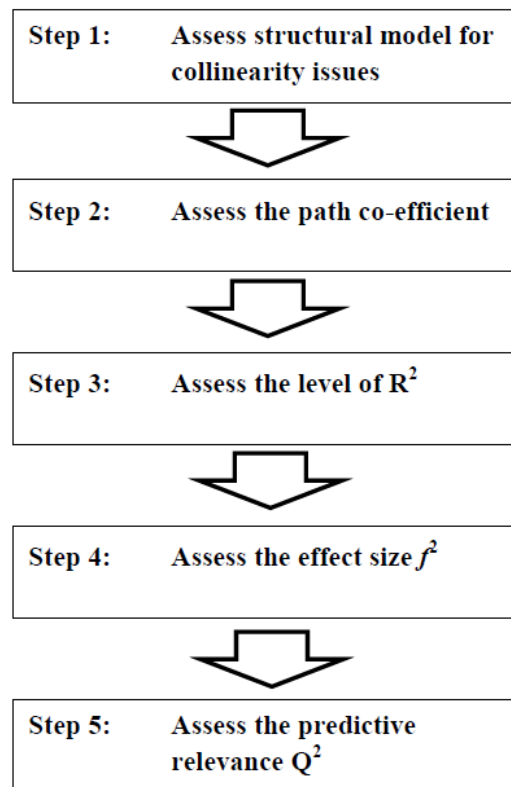
In the assessment of convergent validity, each of the constructs managed to fulfill the minimum requirement of $AVE > 0.5$ and factor loadings of more than 0.708. However, several indicators FIT1, PNS1, PNS2, PNS6, PNS12, NOC28, COC18, and COC202 failed to meet the requirements, but relevant arguments were provided for retaining them in the final measurement model.

Finally, the report discussed the assessment of discriminant validity, which used cross loadings comparison, the Fornell and Larcker criterion, and the HTMT criterion. Each of the constructs in this study was shown to be distinct from one another. The following section will discuss the assessment of structural model for this study.

4.6 ASSESSMENT OF STRUCTURAL MODEL

This section reveals the outcome of the structural model assessment. Hair et al., (2014) proposed a five-step procedure in assessing the structural model, which is employed in this study. Figure 4.13 illustrates the five-step structural model assessment procedure.

Figure 4.13: The five-step procedure for structural model assessment



Source: (Hair et al., 2014)

4.6.1 The Five-Step Procedure for Structural Model Assessment

Step 1: Assess structural model for collinearity issues

It is substantial to ensure that there are no collinearity issue in the structural model prior to conducting the analysis of the structural model. Table 4.13 presents the outcomes of the collinearity test. The VIF score for each individual construct is found to be lower than the offending value of 3.3 (Diamantopoulos & Siguaw, 2006), thus proposing the absence of collinearity issues.

Table 4.13: Collinearity assessment

	Affective OC	Continuous OC	In-role Performance	Job Involvement	Normative OC	OCB	P-O Fit	PNS
Affective OC			1.560			1.560		
Continuous OC			1.231			1.231		
In-role Performance								
Job Involvement			1.445			1.445		
Normative OC			1.415			1.415		
OCB								
P-O Fit	1.065	1.065	1.119	1.065	1.065	1.119		1.000
PNS	1.065	1.065	1.380	1.065	1.065	1.380		

Step 2: Assess the path co-efficient

The purpose of assessing path-coefficients is to evaluate the significance of a hypothesized relationship among the constructs. There are eight latent constructs in the overall structural model which include: (i) P-O Fit, (ii) PNS, (iii) job involvement, (iv) affective organizational commitment, (v) continuous organizational commitment, (vi) normative organizational commitment, (vii) in-role performance, and (viii) OCB. A total of 21 hypotheses were developed to examine the direct relationships between the constructs. The hypotheses are as follows:

Hypothesis 1a: P-O Fit is positively related to In-role Performance

Hypothesis 1b: P-O Fit is positively related to OCB

Hypothesis 2: P-O Fit is positively related to PNS.

Hypothesis 3a: PNS is positively related to In-role Performance.

Hypothesis 3b: PNS is positively related to OCB.

Hypothesis 4a: P-O Fit is positively related to Job Involvement

Hypothesis 4b1: P-O Fit is positively related to Affective Organizational Commitment.

Hypothesis 4b2: P-O Fit is positively related to Normative Organizational Commitment.

Hypothesis 4b3: P-O Fit is positively related to Continuous Organizational Commitment.

Hypothesis 5a: Job Involvement is positively related to In-role Performance.

Hypothesis 5b: Job Involvement is positively related to OCB.

Hypothesis 5c1: Affective Organizational Commitment is positively related to In-role Performance.

Hypothesis 5c2: Normative Organizational Commitment is positively related to In-role Performance.

Hypothesis 5c3: Continuous Organizational Commitment is positively related to In-role Performance.

Hypothesis 5d1: Affective Organizational Commitment is positively related to OCB.

Hypothesis 5d2: Normative Organizational Commitment is positively related to OCB.

Hypothesis 5d3: Continuous Organizational Commitment is positively related to OCB.

Hypothesis 6a: PNS is positively related to Job Involvement.

Hypothesis 6b1: PNS is positively related to Affective Organizational Commitment.

Hypothesis 6b2: PNS is positively related to Normative Organizational Commitment.

Hypothesis 6b3: PNS is positively related to Continuous Organizational Commitment.

In Table 4.14, the results of path co-efficient assessment for each hypothesized direct relationship is presented. According to the results, only several hypothesized relationships were considered significant. The hypotheses are deemed significant at a

99% confidence interval ($p\text{-value} < 0.01$) with $t\text{-value}$ ranging from 2.453 to 6.643.

Therefore, only a few hypotheses on the relationship between the constructs are supported.

Table 4.14: Path co-efficient assessment (N =295)

No	Hypotheses	Path Coefficients	T Statistics	P Values	95% Confidence	Result	
					Intervals		
1	H1a	P-O Fit -> In-role Performance	0.005	0.091	0.928	[-0.107, 0.121]	Not Significant
2	H1b	P-O Fit -> OCB	-0.069	1.102	0.270	[-0.180, 0.064]	Not Significant
3	H2	P-O Fit -> PNS	0.247	4.056**	0.000	[0.131, 0.371]	Significant
4	H3a	PNS -> In-role Performance	0.153	2.453**	0.014	[0.030, 0.274]	Significant
5	H3b	PNS -> OCB	0.126	1.969**	0.049	[0.000, 0.252]	Significant
6	H4a	P-O Fit -> Job Involvement	0.060	0.949	0.343	[-0.065, 0.185]	Not Significant
7	H4b1	P-O Fit -> Affective OC	0.190	3.029**	0.002	[0.063, 0.312]	Significant
8	H4b2	P-O Fit -> Normative OC	0.120	1.491	0.136	[-0.030, 0.287]	Not Significant
9	H4b3	P-O Fit -> Continuous OC	0.000	0.003	0.998	[-0.164, 0.152]	Not Significant
10	H5a	Job Involvement -> In-role Performance	-0.006	0.091	0.928	[-0.148,0.134]	Not Significant
11	H5b	Job Involvement -> OCB	-0.069	0.980	0.327	[-0.208, 0.067]	Not Significant
12	H5c1	Affective OC -> In-role Performance	-0.001	0.020	0.984	[-0.136, 0.134]	Not Significant
13	H5c2	Normative OC -> In-role Performance	-0.073	1.123	0.262	[-0.199, 0.056]	Not Significant
14	H5c3	Continuous OC -> In-role Performance	-0.159	2.655**	0.008	[-0.276, -0.042]	Significant

15	H5d1	Affective OC -> OCB	0.012	0.167	0.867	[-0.128, 0.163]	Not Significant
16	H5d2	Normative OC -> OCB	-0.121	1.844	0.065	[-0.244, 0.011]	Not Significant
17	H5d3	Continuous OC -> OCB	-0.054	0.754	0.451	[-0.199, 0.076]	Not Significant
18	H6a	PNS -> Job Involvement	0.364	5.798**	0.000	[0.246, 0.489]	Significant
19	H6b1	PNS -> Affective OC	0.392	6.643**	0.000	[0.277, 0.508]	Significant
20	H6b2	PNS -> Normative OC	0.341	5.725**	0.000	[0.221, 0.457]	Significant
21	H6b3	PNS -> Continuous OC	0.281	3.461**	0.001	[0.111, 0.421]	Significant

****p<0.01, *p<0.05**

Hypothesis 1 investigated the possibility of positive relationships between P-O Fit and in-role performance, as well as OCB. According to the results, the relationship is demonstrated to be positive, but with no significant paths from P-O Fit to in role performance ($\beta = 0.005$, $p < 0.928$). The relationship negatively insignificant to OCB ($\beta = -0.069$, $p < 0.270$). Hence, hypotheses 1a and 1b are not supported.

Hypothesis 2 tested the possibility of a positive relationship between P-O Fit and PNS. The results suggested that the relationship between P-O Fit and PNS was positive and statistically significant ($\beta = 0.247$, $p < 0.000$). Hence, hypothesis 2 is supported.

Hypothesis 3 investigated the possibility of positive relationships between PNS and in-role performance as well as OCB. The results revealed that the relationships between PNS and in-role performance as well as OCBs were positive and statistically significant ($\beta = 0.153$, $p < 0.014$ and $\beta = 0.126$, $p < 0.049$) respectively. Hence, hypotheses 3a and 3b are supported.

Hypothesis 4 tested the possibility of positive relationships between P-O Fit and job involvement, affective OC, normative OC, and continuous OC. According to the results, the relationship between P-O Fit and job involvement is positive but statistically insignificant ($\beta = 0.754$, $p < 0.343$). Similarly, the relationships between P-O Fit and normative OC and continuous OC were also revealed to be positive but statistically insignificant ($\beta = 0.120$, $p < 0.136$ and $\beta = 0.000$, $p < 0.998$).

respectively. The relationship between P-O Fit and affective OC was found to be positive and statistically significant ($\beta = 0.190$, $p < 0.002$). Hence, hypotheses 4a, 4b2, and 4b3 are not supported but hypothesis 4b1 is supported.

Hypothesis 5 tested the possibility of positive relationships between job involvement and in-role performance as well as OCB. The relationships between affective OC, normative OC, and continuous OC to in-role performance and to OCB were also hypothesized to be positive. The results revealed that the relationship between job involvement and in-role performance and OCB are negative and statistically insignificant ($\beta = -0.006$, $p < 0.928$, $\beta = -0.069$, $p < 0.327$) respectively. Similarly, the relationship between affective OC, normative OC, and in-role performance were found to be negative and statistically insignificant ($\beta = -0.001$, $p < 0.984$ and $\beta = -0.073$, $p < 0.262$) respectively. The relationship between continuous OC and in-role performance was negative and statistically significant ($\beta = -0.159$, $p < 0.008$). The results also revealed that the relationship between affective OC and OCB was positive but statistically insignificant ($\beta = 0.012$, $p < 0.867$). The relationships between normative OC and continuous OC, and OCB were revealed to be negative and statistically insignificant (shown respectively $\beta = -0.121$, $p < 0.867$ and $\beta = -0.054$, $p < 0.451$) respectively. Hence, hypotheses 5a, 5b, 5c1, 5c2, 5d1, 5d2, and 5d3 are not supported, but hypothesis 5c3 is supported.

Hypothesis 6 tested the relationship between PNS and job involvement, affective OC, normative OC and continuous OC. It was hypothesized that the relationships

between PNS and job involvement, affective OC, normative OC and continuous OC would be positive. The results revealed that the relationship between PNS and job involvement was positive and statistically significant ($\beta = 0.364$, $p < 0.000$). While, the relationship between PNS and affective OC, normative OC and continuous OC was positive and statistically significant ($\beta = 0.392$, $p < 0.000$, $\beta = 0.341$, $p < 0.000$, and $\beta = 0.281$, $p < 0.001$) respectively. Thus, hypothesis 6a, 6b1, 6b2 and 6b3 was supported.

Step 3: Assess the level R²

The third step in evaluating a structural model is to assess the level of R² of a model. The R², or commonly known as determination of co-efficient, “represents the amount of variance in the endogenous constructs explained by all the exogenous constructs linked to it” (Hair et al., 2014, p.175).

Table 4.16 illustrates the R² value for endogenous constructs of PNS, job involvement, affective OC, normative OC, continuous OC, in-role performance, and OCB. The R² value of 0.061 for PNS indicates that the exogenous construct which refers to P-O Fit tends to explain 6.1% of the variance in PNS. The R² value of 0.147 for job involvement suggests that P-O Fit explains 14.7% of the variance in job involvement. The R² values which are represented as 0.226, 0.079, and 0.040 are for affective OC, normative OC, and continuous OC, respectively. This suggests that P-O Fit explains 22.6%, 15.1%, and 7.9% of variance for affective OC, normative OC, and continuous OC respectively. The R² value of 0.040 for in-role performance

suggests that P-O Fit explains 4.0% of variance in in-role performance. Finally, the R^2 value of 0.034 for OCB suggests that P-O Fit explains 3.4% of variance in OCB. Hence, it can be postulated that the highest recorded relationship between affective OC and P-O Fit is still weak (Hair et al., 2014). The strength of the relationships between PNS, normative OC, continuous OC, in-role performance, and OCB on P-O Fit are also weak (Hair et al., 2014).

Step 4: Assess the effect size f^2

The assessment of effect size f^2 is to evaluate whether an exogenous variable changes the R^2 values when removed from a structural model. Hence, the assessment of effect size seeks to evaluate whether exogenous constructs have a substantive impact on endogenous constructs. The result of the effect size assessment is presented in Table 4.15.

As presented in Table 4.15, P-O Fit (0.044) has a small to medium effect size but PNS (0.186) has a medium to large effect size on affective OC. Meanwhile, both P-O Fit (0.000) and PNS (0.081) have small effect sizes on continuous OC. Affective OC (0.000), continuous OC (0.021), job involvement (0.000), normative OC (0.004), P-O Fit (0.000), and PNS (0.018) have small to medium effect sizes on in-role performance when in-role performance is used as the endogenous variable. P-O Fit (0.004) and PNS (0.145) have small to medium effect sizes on job involvement. P-O Fit (0.016) and PNS (0.129) have small to medium effect sizes on normative OC.

Finally, the results show that P-O Fit (0.065) has a small to medium effect size on PNS.

The results show that PNS is important in explaining affective OC. The exclusion of this construct in the model will result in a drastic change in the amount of variance explained (R^2) for affective OC.

Table 4.15: The determination of effect size (f^2)

	Affective	Continuous	In-role	Job	Normative		
	OC	OC	Performance	Involvement	OC	OCB	P-O Fit
Affective OC			0.000			0.000	
Continuous OC			0.021			0.002	
In-role Performance							
Job Involvement			0.000			0.003	
Normative OC			0.004			0.011	
OCB							
P-O Fit	0.044	0.000	0.000	0.004	0.016	0.004	0.065
PNS	0.186	0.081	0.018	0.145	0.129	0.012	

Note: (Hair et al., 2014) suggest the following (0.02 – small effect size, 0.15 – Medium effect size, 0.35 – Large effect size)

Step 5: Assess the relevance Q^2

The assessment of predictive relevance Q^2 (Geisser, 1974; Stone, 1974) is to examine whether the exogenous constructs have a predictive power over the endogenous constructs based on blindfolding technique. Hair et al. (2014) proposed that a Q^2 value larger than 0 indicates that the exogenous constructs have a predictive ability on the endogenous constructs.

Table 4.16 shows that the Q^2 values of all endogenous constructs are considerably higher than zero. Affective OC possesses the highest Q^2 values (0.117), followed by normative OC (0.084), job involvement (0.076), continuous OC (0.032), in-role performance (0.028), PNS (0.022) and, finally OCB (0.013). These results provide clear support for the model's predictive relevance regarding the endogenous latent variables.

Table 4.16: The determination of co-efficient (R^2) and predictive relevance (Q^2)

	Co-efficient of determination	Predictive Relevance
	R^2	Q^2
Affective OC	0.226	0.117
Continuous OC	0.079	0.032
In-role Performance	0.040	0.028
Job Involvement	0.147	0.076
Normative OC	0.151	0.084
OCB	0.034	0.013
PNS	0.061	0.022
P-O Fit		

Note: i) R^2 score interpretation (0.75 – Substantial, 0.50 – Moderate, 0.25 – weak)

ii) Q^2 score (value larger than 0 indicates that the exogenous construct have predictive relevance over the endogenous constructs)

4.7 ASSESSMENT OF MEDIATION ANALYSIS

In PLS-SEM, the bootstrapping procedure is applied to examine the mediating effect of the hypotheses. In this case, the mediation effect will be able to be validated by assessing the indirect effect report, which is presented in Table 4.17.

4.7.1 Assessment of Mediating Effect of PNS (PNS) between P-O Fit and Employee Attitudes (Job Involvement and Organizational Commitment)

This section presents the result of assessing the mediating effect of PNS. In this section, four hypotheses were constructed to examine the mediating effect of PNS.

The developed hypotheses are as follows:

Hypothesis 7a: PNS mediates the relationship between P-O Fit and Job Involvement.

Hypothesis 7b1: PNS mediates the relationship between P-O Fit and Affective Organizational Commitment.

Hypothesis 7b2: PNS mediates the relationship between P-O Fit and Normative Organizational Commitment.

Hypothesis 7b3: PNS mediates the relationship between P-O Fit and Continuous Organizational Commitment.

As illustrated in Table 4.17, all the indirect effects ($\beta = 0.090$, $\beta = 0.097$, $\beta = 0.084$, and $\beta = 0.069$) were significant, with t-values of 3.211, 3.586, 3.240, and 2.479. The 95% Bootstrapping Confidence Interval results (Preacher & Hayes, 2008) [LL =

0.035, UL = 0.145] , [LL = 0.044, UL = 0.150], [LL = 0.033, UL = 0.135] and [LL = 0.015, UL = 0.124] failed to straddle a 0 in between the upper and lower interval, thus suggesting the presence of mediation. Hence, it can be concluded that the hypotheses on the mediating effect of PNS between the P-O Fit and employee attitudes are supported.

4.7.2 Assessment of Mediating Effect of Employee Attitudes (Job Involvement and Organizational Commitment) between P-O Fit and Employee Outcomes (In-role Performance and OCB)

This section presents the result on the assessment of the mediating effect of job involvement. The two hypotheses developed to examine the mediating effect of job involvement are stated as follows:

Hypothesis 8a: Job Involvement mediates the relationship between P-O Fit and In-role Performance.

Hypothesis 8b: Job Involvement mediates the relationship between P-O Fit and OCB.

As illustrated in Table 4.17, all the indirect effects ($\beta = 0.000$ and $\beta = -0.004$) were insignificant with t-values of -0.060 and -0.518 . The 95% Bootstrapping Confidence Interval results (Preacher & Hayes, 2008) [LL= -0.012 , UL= 0.011] and [LL= -0.020 , UL= 0.012] suggest that there is a straddle of 0 in between the upper and lower interval, which indicates the absence of mediation. Hence, it can be concluded that the hypotheses on the mediating effect of job involvement are not supported.

Next, this section presents the results of assessing the mediating effects of affective organizational commitment, normative organizational commitment, and continuous organizational commitment. The six hypotheses constructed to examine the mediating effect of affective OC, normative OC, and continuous OC are shown as follows:

Hypothesis 8c1: Affective Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.

Hypothesis 8c2: Normative Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.

Hypothesis 8c3: Continuous Organizational Commitment mediates the relationship between P-O Fit and In-role Performance.

Hypothesis 8d1: Affective Organizational Commitment mediates the relationship between P-O Fit and OCB.

Hypothesis 8d2: Normative Organizational Commitment mediates the relationship between P-O Fit and OCB.

Hypothesis 8d3: Continuous Organizational Commitment mediates the relationship between P-O Fit and OCB.

As illustrated in Table 4.17, all the indirect effects ($\beta = 0.000$, $\beta = -0.009$, $\beta = 0.000$, $\beta = 0.002$, $\beta = -0.015$, and $\beta = 0.000$) were insignificant, with t-values of -0.014, -0.730, 0.000, 0.152, -1.037 and 0.000 respectively. The 95% Bootstrapping Confidence Interval results (Preacher & Hayes, 2008) [LL= -0.028, UL= 0.027] , [LL= -0.032, UL= 0.015], [LL= -0.027, UL= 0.027], [LL= -0.027, UL= 0.032], [LL

= 0-0.042, UL = 0.013] and [LL = -0.016, UL = 0.016] straddle a 0 in between the upper and lower interval, thus suggesting that there was no mediation. Hence, it can be concluded that the hypotheses on the mediating effect of employee attitudes on the relationship between P-O Fit and employee outcomes are not supported.

4.7.3 Assessment of Mediating Effect of Employee Attitudes (Job Involvement and Organizational Commitment) between PNS and Employee Outcomes (In-role Performance and OCB)

This section presents the result on the assessment of the mediating effect of job involvement between PNS and employee outcomes. The two hypotheses were developed to examine the mediating effect of job involvement are stated as follows:

Hypothesis 9a: Job Involvement mediates the relationship between PNS and In-role Performance.

Hypothesis 9b: Job Involvement mediates the relationship between PNS and OCB.

As illustrated in Table 4.17, all the indirect effects ($\beta = -0.002$ and $\beta = -0.025$) were insignificant, with t-values of -0.081 and -0.930 . The 95% Bootstrapping Confidence Interval results (Preacher & Hayes, 2008) [LL= -0.055 , UL= 0.051] and [LL = -0.078 , UL = 0.028] suggest that there is straddle of 0 in between the upper and lower interval, which indicates the absence of mediation. Hence, it can be concluded that the hypotheses on the mediating effect of job involvement on the relationships between PNS and employee outcomes (in-role performance and OCB) are not supported.

Next, the section below presents the result of assessing the mediating effect of affective organizational commitment, normative organizational commitment, and continuous organizational commitment on the relationships between PNS and employee outcomes (in-role performance and OCB). The six hypotheses constructed to examine the mediating effect of affective OC, normative OC, and continuous OC on these relationships are shown as follows:

Hypothesis 9c1: Affective Organizational Commitment mediates the relationship between PNS and In-role Performance.

Hypothesis 9c2: Normative Organizational Commitment mediates the relationship between PNS and In-role Performance.

Hypothesis 9c3: Continuous Organizational Commitment mediates the relationship between PNS and In-role Performance.

Hypothesis 9d1: Affective Organizational Commitment mediates the relationship between PNS and OCB.

Hypothesis 9d2: Normative Organizational Commitment mediates the relationship between PNS and OCB.

Hypothesis 9d3: Continuous Organizational Commitment mediates the relationship between PNS and OCB.

As illustrated in Table 4.17, the indirect effects ($\beta = 0.000$, $\beta = -0.045$, $\beta = -0.025$, $\beta = 0.005$, and $\beta = -0.041$) were insignificant, with t-values of -0.014, -2.128, -1.081, 0.157, and -1.719 respectively. The 95% Bootstrapping Confidence Interval results (Preacher & Hayes, 2008) [LL= -0.055, UL= 0.054], [LL= -0.086, UL= -0.004],

[LL= -0.070, UL= 0.020], [LL= -0.054, UL= 0.064] and [LL = -0.088, UL = 0.006] straddle a 0 in between the upper and lower interval, suggesting that there was no mediation. The indirect effect $\beta = -0.015$ was significant with a t-value of 2.168. The 95% Bootstrapping Confidence Interval results [LL = -0.001, UL = -0.029] did not straddle a 0 in between the upper and lower interval, which indicates the presence of mediation. Hence, it can be concluded that the hypothesis on the mediating effect of continuous OC on the relationship between PNS and OCB is supported.

Table 4.17: Indirect effect report

No	Hypotheses		Indirect Effect	Standard Error (STERR)	T Statistic (O/STERR)	Confidence	Confidence	Result
						Interval Low	Interval Up	
22	H7a	P-O Fit > PNS > Job Involvement	0.090	0.028	3.211**	0.035	0.145	Significant
23	H7b1	P-O Fit > PNS > Affective OC	0.097	0.027	3.586**	0.044	0.150	Significant
24	H7b2	P-O Fit > PNS > Normative OC	0.084	0.026	3.240**	0.033	0.135	Significant
25	H7b3	P-O Fit > PNS > Continuous OC	0.069	0.028	2.479**	0.015	0.124	Significant
26	H8a	P-O Fit > Job Involvement > In-role Performance	0.000	0.006	-0.060	-0.012	0.011	Not significant
27	H8b	P-O Fit > Job Involvement > OCB	-0.004	0.008	-0.518	-0.020	0.012	Not significant
28	H8c1	P-O Fit > Affective OC > In-role Performance	0.000	0.014	-0.014	-0.028	0.027	Not significant
29	H8c2	P-O Fit > Normative OC > In-role Performance	-0.009	0.012	-0.730	-0.032	0.015	Not significant
30	H8c3	P-O Fit > Continuous OC > In-role Performance	0.000	0.014	0.000	-0.027	0.027	Not significant
31	H8d1	P-O Fit > Affective OC > OCB	0.002	0.015	0.152	-0.027	0.032	Not significant
32	H8d2	P-O Fit > Normative OC > OCB	-0.015	0.014	-1.037	-0.042	0.013	Not significant
33	H8d3	P-O Fit > Continuous OC > OCB	0.000	0.008	0.000	-0.016	0.016	Not significant

34	H9a	PNS > Job Involvement > In-role Performance	-0.002	0.027	-0.081	-0.055	0.051	Not significant
35	H9b	PNS > Job Involvement > OCB	-0.025	0.027	-0.930	-0.078	0.028	Not significant
36	H9c1	PNS > Affective OC > In-role Performance	0.000	0.028	-0.014	-0.055	0.054	Not significant
37	H9c2	PNS > Normative OC > In-role Performance	-0.045	0.021	-2.128	-0.086	-0.004	Not significant
38	H9c3	PNS > Continuous OC > In-role Performance	-0.025	0.023	-1.081	-0.070	0.020	Not significant
39	H9d1	PNS > Affective OC > OCB	0.005	0.030	0.157	-0.054	0.064	Not significant
40	H9d2	PNS > Normative OC > OCB	-0.041	0.024	-1.719	-0.088	0.006	Not significant
41	H9d3	PNS > Continuous OC > OCB	-0.015	-0.007	2.168**	-0.001	-0.029	Significant

*p<0.05, **p<0.01

4.8 OVERALL HYPOTHESES RESULTS

This section summarizes the results of the hypotheses assessment conducted for this study. The hypothesized relationships were assessed based on the results of path analysis (direct effect), and included the mediation tests that used the bootstrapping method to identify the indirect effect. A summary of the hypotheses assessment is presented in Table 4.18 as shown below:

Table 4.18: Summary of hypotheses assessment

No	Hypotheses		Standard beta	t-value	Outcome
1	1a	P-O Fit → In-role Performance	0.005	0.091	Not Supported
2	1b	P-O Fit → OCB	-0.069	1.102	Not Supported
3	2	P-O Fit → PNS	0.247	4.056**	Supported
4	3a	PNS → In-role Performance	0.153	2.453**	Supported
5	3b	PNS → OCB	0.126	1.969**	Supported
6	4a	P-O Fit → JI	0.060	0.949	Not Supported
7	4b1	P-O Fit → AOC	0.190	3.029**	Supported
8	4b2	P-O Fit → NOC	0.120	1.491	Not Supported
9	4b3	P-O Fit → COC	0.000	0.003	Not Supported
10	5a	JI → In-role Performance	-0.006	0.091	Not Supported
11	5b	JI → OCB	-0.069	0.980	Not Supported
12	5c1	AOC → In-role Performance	-0.001	0.020	Not Supported
13	5c2	NOC → In-role Performance	-0.073	1.123	Not Supported
14	5c3	COC → In-role Performance	-0.159	2.655**	Supported
15	5d1	AOC → OCB	0.012	0.167	Not Supported

16	5d2	NOC → OCB	-0.121	1.844	Not Supported
17	5d3	COC → OCB	-0.054	0.754	Not Supported
18	6a	PNS → JI	0.364	5.798**	Supported
19	6b1	PNS → AOC	0.392	6.643**	Supported
20	6b2	PNS → NOC	0.341	5.725**	Supported
21	6b3	PNS → COC	0.281	3.461**	Supported
22	7a	P-O Fit → PNS → JI	0.090	3.211**	Supported
23	7b1	P-O Fit → PNS → AOC	0.097	3.586**	Supported
24	7b2	P-O Fit → PNS → NOC	0.084	3.240**	Supported
25	7b3	P-O Fit → PNS → COC	0.069	2.479**	Supported
26	8a	P-O Fit → JI → In-role Performance	0.000	-0.060	Not Supported
27	8b	P-O Fit → JI → OCB	-0.004	-0.518	Not Supported
28	8c1	P-O Fit → AOC → In-role Performance	0.000	-0.014	Not Supported
29	8c2	P-O Fit → NOC → In-role Performance	-0.009	-0.730	Not Supported
30	8c3	P-O Fit → COC → In-role Performance	0.000	0.000	Not Supported
31	8d1	P-O Fit → AOC → OCB	0.002	0.152	Not Supported
32	8d2	P-O Fit → NOC → OCB	-0.015	-1.037	Not Supported
33	8d3	P-O Fit → COC → OCB	0.000	0.000	Not Supported
34	9a	PNS → JI → In-role Performance	-0.002	-0.081	Not Supported
35	9b	PNS → JI → OCB	-0.025	-0.930	Not Supported
36	9c1	PNS → AOC → In-role Performance	0.000	-0.014	Not Supported
37	9c2	PNS → NOC → In-role Performance	-0.045	-2.128	Not Supported
38	9c3	PNS → COC → In-role Performance	-0.025	-1.081	Not Supported
39	9d1	PNS → AOC → OCB	0.005	0.157	Not Supported
40	9d2	PNS → NOC → OCB	-0.041	-1.719	Not Supported
41	9d3	PNS → COC → OCB	-0.015	2.168**	Supported

**p<0.01, *p<0.05

4.9 CHAPTER SUMMARY

This chapter presents the data analysis methods as well as the results of the analyses. Section 4.2 outlined the descriptive statistics of the respondents, while Section 4.3 discussed the survey questionnaires collected.

In Section 4.4, the descriptive analyses of the responses are outlined, followed by the discussion on the measurement model analysis in Section 4.5, which included the assessment of construct reliability, convergent validity, and discriminant validity. All requirements for the measurement model analysis managed to be satisfied and the subsequent analysis (structural model analysis) was carried out.

Section 4.6 presented the structural model assessment. The results of the assessment proved to be satisfactory based on the Hair et al. (2014) five-step procedure to assess the structural model. The results of the collinearity assessment confirmed that all the constructs did not have collinearity issues. Path-coefficient analysis indicated that several paths, the direct relationships, H2, H3a, H3b, H4b1, H5c3, H6a, H6b1, H6b2 and H6b3 were significant (*see table 4.14*).

The assessment of the co-efficient of determination (R^2) indicated that the exogenous variables are capable of explaining not more than 22.6% of the variances in endogenous variables. These results further assert that PNS is important in explaining affective OC. Hence, the exclusion of this construct from the model will result in a drastic change in the amount of variance explained (R^2) for affective OC.

Each of the exogenous variable had small to medium effect sizes on the endogenous variables, except for PNS which had a medium to large effect (affective OC). In the assessment of predictive relevance, Q^2 yielded a value of more than 0, indicating that the exogenous variable has predictive relevance over the endogenous variables.

The mediation effects results were presented in Section 4.7. The indirect effect assessment results were revealed to be significant, suggesting that there is a mediating effect of PNS on the relationship between (i) P-O Fit and job involvement, (ii) P-O Fit and affective OC, (iii) P-O Fit and normative OC, and (iv) P-O Fit and continuous OC. The result was found to be significant, suggesting that there is a mediating effect of continuous OC on the relationship between PNS and OCB. The results that can be observed in Table 4.17 show that H7a, H7b1, H7b2, H7b3, and H9d3 were significant.

Finally, Section 4.8 described the overall hypotheses, results for this study. This section summarizes the hypotheses developed in this study and their respective evaluation results.

CHAPTER 5

DISCUSSION & CONCLUSION

5.1 CHAPTER OVERVIEW

This chapter presents the discussion and conclusion of the current study, which is divided into six sections. The first section discusses the findings related to the research questions outlined in Chapter 1, followed by the conclusion. Next, the practical and theoretical implications of the present research are presented. Then, the next section discusses the limitations of the current study. The final section of the chapter outlines the directions for future research.

5.2 DISCUSSION

The discussion of the study is organized based on the research questions addressed in this thesis.

5.2.1 What is the relationship between employee's perceptions of P-O Fit and their work outcomes in Malaysian Higher Education Institutions?

The first research question addressed the relationship between employee's perceptions of P-O Fit and their work outcomes. The results provided in Chapter 4, particularly the results presented in Table 4.14 showed that the relationship between P-O Fit and employee outcomes, for both in-role performance and OCB, were insignificant. The results contradict a number of previous studies (Chinomona et al.,

2013; Demir et al., 2015; Kim et al., 2013). Hence, the findings of the present study adds a new argument which states that there is no relationship between P-O Fit, and in-role performance and OCB.

5.2.2 What is the relationship between employee's perceptions of P-O Fit and their PNS (PNS)?

The second research question addressed the relationship between employee's perceptions of P-O Fit and PNS. In this case, P-O Fit was revealed to have a significant and positive relationship with PNS. This finding is found to be consistent with previous studies (Greguras & Diefendorff, 2009). Employees who perceived themselves to fit better with their organizations have been reported to possess higher levels of autonomy, competence, and relatedness satisfaction. P-O Fit likely relates to need satisfaction because when the employees' and organizations' values are aligned, organizations are more likely to offer employees what they desire in terms of satisfying their basic psychological needs (Cable & Edwards, 2004). This study supports the relationship between P-O Fit and PNS.

5.2.3 What is the relationship between PNS and employee's outcomes?

The third research question addressed the relationship between PNS and employees' outcomes (in-role performance and OCB). Consistent with the rationale of the SDT theory and evidence from previous research (e.g. Blais & Brière, 1992; Baard et al., 2004; Gagne & Deci, 2005; Greguras & Diefendorff, 2009), the findings of the current study revealed that PNS has a positive and significant relationship with in-

role performance and OCB. Employees who perceived that their psychological needs have been fulfilled by the organization will reciprocate and feel obliged to perform well for their organization. Employees who experienced greater PNS have better work performance.

5.2.4 What is the relationship between employee's perceptions of P-O Fit and their work attitudes?

The fourth research question addressed the relationship between employees' perceptions of P-O Fit and their work attitudes (job involvement, affective OC, normative OC, and continuous OC). The results of this study are consistent with the findings of previous research (e.g. Kazemi, 2014; Maden & Kabasakal, 2013 and Nyambegera et al., 2001), which revealed that P-O Fit has a significant positive relationship with affective OC. However, the relationships of P-O Fit and normative OC and continuous OC were reported to have positive, but insignificant. Similarly, the relationship between P-O Fit and job involvement was not significant.

The results of the significant relationship between P-O Fit and affective OC showed that employees who recognized a high fit between their personal values and those of their organization tend to have higher levels of affective OC. Similar to Finegan's (2000) results; the employee is more likely to be affectively committed when they perceive their organization to be concerned about their welfare. Hence, an employee's perceived fit with the organization is an important predictor of his or her affective commitment to the organization.

5.2.5 What is the relationship between employee attitudes and their outcomes?

The fifth research question addressed the relationship between employee attitudes (job involvement, affective OC, normative OC, and continuous OC) and employee outcomes (in-role performance and OCB). The results of this study agree with the findings of previous research (e.g. Islam et al., 2012; Kazemi, 2014; Suliman & Kathairi, 2013), which revealed that continuous OC (-0.159) has a negative significant relationship with in-role performance ($t = 2.655$, $p = 0.008$). However, the rest of the relationships tested in hypotheses 5a, 5b, 5c1, 5c2, 5d1, 5d2, and 5d3 are not supported. The results showed an inverse relationship between continuous OC and in-role performance.

The findings of the current study conclude that employees who are highly committed to an organization will have less in-role performance and vice versa. This study assumes that the employee's commitment is the result of being afraid that they might lose their desired investments, or because they are presented with no other options. There may also be an unknown factor that influences both variables. This finding adds weight to a new argument which is important to be focused on by the organization.

5.2.6 What is the relationship between PNS and employee's attitudes?

The sixth research question addressed the relationship between employees' PNS and employee attitudes. The results in Chapter 4 revealed that PNS has a significant

positive relationship with job involvement, affective OC, normative OC, and continuous OC. These findings are consistent with prior studies (e.g. Broeck et al., 2010; De Cuyper et al., 2010; Deci et al., 2001).

The current study supports the proposition that the employees' PNS needs to be achieved because it is an important factor in determining employees' attitudes. These findings are consistent with the rationale of the social exchange theory. In other words, employees who feel that their psychological need for autonomy, competence and relatedness have been fulfilled by the organization will feel more satisfied; hence, they will be better involved in their job and more committed to their organization.

5.2.7 Does PNS mediate the relationship between P-O Fit and employee attitudes?

The seventh research question addressed the mediating effects of PNS on the relationship between P-O Fit and employee attitudes (job involvement, affective OC, normative OC, and continuous OC). The findings of the current study are consistent with the findings obtained by Greguras and Diefendorff (2009), which revealed that PNS acts as a mediator on the relationship between P-O Fit and job involvement, affective OC, normative OC, and continuous OC. In Chapter 4, the relationship between P-O Fit to job involvement is weak (0.060) and statistically insignificant ($t = 0.949$, $p = 0.343$) as shown in Table 4.14. The study concludes that PNS is classified

as indirect-only mediation to the relationship of P-O Fit to job involvement based on the mediation analysis result presented in Table 4.17.

The relationship between P-O Fit and affective OC (0.190) was reported to have a positive and statistically significant ($t = 3.029$, $p = 0.002$) effect on affective OC. The study concludes that PNS mediates the relationship because both the direct and the indirect effect are significant. The study computes the direct and indirect effect to further substantiate the type of mediation. Meanwhile, the sign of their product is also positive (i.e., $0.190 \cdot 0.097 = 0.018$) because the direct and indirect effects are both positive. The study concludes that PNS represents complementary mediation of the relationship between P-O Fit and affective OC.

Meanwhile, as shown in Table 4.14 in Chapter 4, the relationship between P-O Fit and normative OC (0.120) was reported to have a positive but statistically insignificant ($t = 1.491$, $p = 0.136$) effect on normative OC. The results also showed that the relationship between P-O Fit and continuous OC is weak (0.000) and statistically insignificant ($t = 0.003$, $p = 0.998$). The study concludes that PNS has indirect-only mediation on the relationship between P-O Fit and normative OC, as well as between P-O Fit and continuous OC, based on the mediation analysis result in Table 4.17.

The findings provide empirical support for the mediating role of PNS in the relationship between P-O Fit and employee attitudes. PNS represents a mechanism that supports the relationship between P-O Fit and employee attitudes. This further

demonstrates that employees who perceived themselves to fit better with their organizations will be able to enhance their employee satisfaction of the basic psychological needs, which in turn positively influence their job involvement and commitment to the organization.

5.2.8 Do employee attitudes mediate the relationship between P-O Fit and employee outcomes?

The eighth research questions addressed the mediating effect of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationship between P-O Fit and employee outcomes (in-role performance and OCB). Contrary to the Social Exchange Theory, the findings of the current study did not support the mediating effect of employee attitudes on the relationship between P-O Fit and employee outcomes. The results of indirect effect from Chapter 4 is shown in Table 4.17, which revealed that there is no-effect of non-mediation in these relationships.

5.2.9 Do employee attitudes mediate the relationship between PNS and employee outcomes?

The ninth research question addressed the mediating effects of employee attitudes (job involvement, affective OC, normative OC and continuous OC) on the relationship between PNS and employee outcomes (in-role performance and OCB). The findings of this study found that continuous OC acts as a mediator on the

relationship between PNS and OCB. This particular relationship aligns with the rationale of the Social Exchange Theory. Employees who perceived that their psychological need have been fulfilled by the organization will feel more committed to their work, which in turn will enhance their OCB.

Table 4.14 in Chapter 4 shows that the relationship between PNS and OCB (0.126) is found to be positive and statistically significant ($t = 1.969$, $p = 0.049$). The study concludes that PNS partially mediates the relationship because both the direct and indirect effects are significant. The study computes the direct effect and the indirect effect to further elaborate the type of partial mediation. The direct and indirect effects are both significant, but they are pointed in opposite directions (i.e. $0.126 - 0.015 = -0.002$). Hence, the study concludes that continuous OC represents competitive mediation of the relationship between PNS and OCB.

5.3 CONCLUSION

The findings of this research show that P-O Fit has a direct effect on PNS and affective OC. The results of this study also revealed that continuous OC has a negative direct effect on in-role performance. In addition, the study found that PNS has a complete direct effect on employee attitudes (job involvement, affective OC, normative OC, and continuous OC). Furthermore, P-O Fit was found to have a direct effect and indirect effect on affective OC via PNS. The results supported that PNS mediates the relationship between P-O Fit and employee attitudes. Continuous OC was revealed to act as a mediator between PNS and OCB. Hence, P-O Fit and PNS

can be viewed as independent but interrelated predictors of employee attitudes and outcomes in higher education institutions. Administrations should endeavour to recruit employees who fit with the organization which will enhance the perceived PNS. Organizations are more likely to offer employees what they desire in terms of satisfying the basic psychological needs, particularly when the values of both employees and organizations are aligned (Cable & Edwards, 2004). According to the current study, the organization should increase their employees' PNS which in turn, will lead to a better involvement towards their job and more commitment in their organizations. In summary, these paths will benefit organizations through in-role performance and OCB.

5.4 PRACTICAL IMPLICATIONS

This section focuses on some practical implications of this study, which are related to workplace planning and policy, as well as university management and administration. The findings of this research may provide motivation in the interest of the management, including some useful suggestions for organizations or managers that wish to increase positive workplace effects. The current study indicates that employee attitudes and performance will be enhanced when employees tend to perceive themselves to fit with their organization and when their psychological needs for autonomy, relatedness, and competence are satisfied. It is believed that great organizations are built through the efforts of great people. It is important to conduct an effective recruitment and selection process in order for an organization to hire and retain great people.

For instance, this can be conducted during an interview which requires a skilled interviewer that has full knowledge of the organization's values as well as the desired characteristics, behaviours, and competencies needed to perform the job. Physical appearance should not be included as one of the measurements because it is not necessarily related to the actual performance of the job. Hence, the behavioural interviewer is needed to be able to determine an applicant's value in order to gain some good information about the candidate's values that may match with the organization. Kim (2012) suggested the importance to facilitate 'fit' on entry to the organization, which requires the managers to provide job seekers with the opportunities to learn about the values of their organization to allow them to assess whether the organization is likely to fit well with their own personal values.

Another essential point that can be achieved through specific assessments includes personality tests, situational judgment tests, or behaviour-rating assessments. For instance, the scale used might be useful in identifying the differences between low-level and high-level value congruence. It is confirmed that the best way to achieve fit is to hire the right people in the first place. Hiring people who fit with the organization right at the beginning will make both, the organization and the person hired happy and will provide them with the opportunity to succeed.

The present study shows the importance of PNS on the relationship between the employees who fit with the organization and their attitudes. Employees that are hired are assumed to fit with the organization. Therefore, it is vital for the organization to

create cultures that can positively impact employees' PNS. The management should ensure that employees are provided with sufficient on-going training opportunities, autonomy needs, reward structures and performance systems that can provide feedback about employee's competency. It is advisable for the organization to sponsor events such as retreats or sports events for the staff, which is believed to satisfy relatedness needs. These initiatives by the management are expected to increase employees' need satisfactions. It is believed that employees who are satisfied with their psychological needs will in turn, demonstrate positive attitudes and perform well.

5.5 THEORETICAL IMPLICATIONS

The major findings of the current study revolve around the relationships between P-O Fit, PNS, employee attitudes (job involvement, organizational commitment), and employee outcomes (in-role performance and OCB) that were proposed in the study framework and further supported by the data from Malaysian academicians. The finding that showed how PNS plays an important mediating role between P-O Fit and job involvement and organizational commitment need to be further explored.

The results of the current study failed to prove the direct relationships between P-O Fit and in-role performance and OCB. However, it was anticipated that having a high degree of P-O Fit will result in the increase of PNS, which will subsequently lead to increased job involvement and organizational commitment. It can also contribute to better in-role performance and OCB. All in all, this study provides further empirical

evidence that recognising their personal values can further assist employees in explaining and understanding their possible attitudes and behaviours.

This study utilised Social Identity Theory (SIT) to link P-O Fit with employee attitudes (i.e., job involvement and organizational commitment) and employee outcomes (i.e., in-role performance and OCB). SIT encourages the employees to feel recognized and be strongly identified with the organization. The employees will experience positive job attitudes and outcomes when their values are congruent with the values of the employing organization. The SIT approach suggests that people are more likely to consider themselves and others as one group, which will help them to be distinguished in meaningful ways (Conway & Briner, 2012).

The social identity approach enables us to formulate further predictions about work conditions that encourage feelings of identification, since this approach also informs us about the circumstances under which people tend to identify with the collective in the absence of interdependence or individual instrumentality considerations.

(Ellemers, Gilder, & Haslam, 2004, p.463)

More research on the mechanisms linking P-O Fit and employee outcomes are necessary to be performed (Chinomona et al., 2013; Demir et al., 2015; Marescaux et al., 2013). There is also a need to examine the mechanisms through which P-O Fit affects employee outcomes. The current study contributes to the literature of P-O Fit

by examining the impact of both PNS and employee attitudes. The findings of the current study revealed that PNS mediates the relationship between P-O Fit and job involvement, affective OC, normative OC, and continuous OC. Continuous OC was also found to act as a mediator in the relationship between PNS and OCB.

Self-Determination Theory (SDT) asserts that people actively seek opportunities to satisfy their basic psychological needs based on a positive psychological motivation theory. This study shows that when an organization satisfies their employees' needs and provides opportunities for skill utilization, it will enhance employees' job involvement, organizational commitment, in-role performance, and OCB.

The framework for this study was based on the integration of the models of P-O Fit, PNS, employee attitudes (job involvement and organizational commitment), and employee outcomes (in-role performance and OCB). This study contributes to the PNS literature by examining the effects of high P-O Fit. The results showed that employees who perceived themselves to fit better with their organizations tend to report a higher level of autonomy, relatedness, and competence need satisfaction. However, there is a scarce study on this relationship (Greguras & Diefendorff, 2009) but this study manages to contribute by adding new results to the existing literature.

In addition, this study has also made a contribution to the literature by examining the mediating effects of employee attitudes (job involvement and organizational commitment) on the relationship between PNS and employee outcomes (in-role performance and OCB). The mechanisms through which PNS affects employee

outcomes have to be further investigated. Previous studies (Cohen, 1999; Cohen and Vigoda, 2000) emphasized that employees who feel indebted regarding the needs satisfaction provided by the organization will subsequently feel obligated to reciprocate. Hence, employee attitudes were assumed to mediate the relationship between PNS and employee outcomes. However, no evidence of this possibility managed to be found. This study shows that continuous OC represents competitive mediation on the relationship between PNS and OCB. The findings of this study relate to these concepts, which further affirmed the relevant theoretical proposals.

Finally, the majority of the studies on the relationship between P-O Fit and employee outcomes as well as the studies linking PNS with employee outcomes were conducted in the Western world. Therefore, to the best of the author's knowledge, this study has managed to provide the first analysis of these relationships in Malaysia. The findings of the current study also serve as a starting point for future research due to the relatively minimum research conducted in this field in Malaysia. Finally, the current findings provide a basis for further research into the characteristics of the academic profession in Malaysia.

5.6 LIMITATIONS

The findings of this study should be interpreted by considering a number of limitations, similar to most research of this nature.

- i. The current study reported that more than half of the proposed hypotheses were not significant. It might be due to the theoretical issues, where certain other mediating variables could be the real mediators which were important in this context that were not considered. Another reason could be that many of the variables used were tested in Western countries and in different industries (e.g. Cha, Chang, & Kim, 2013; Demir et al., 2015; Islam, Aamir, Khan, & Rehan, 2012; Kazemi, 2014; Maden & Kabasakal, 2014; Zhang, 2013).
- ii. The data was collected from academicians in Malaysian higher education institutions. The results of this study might not be able to generalise the Malaysian context as a whole, and are limited only to the studied sample. Therefore, the generalisation of the findings may be limited only to the academicians in higher education institutions in Malaysia.
- iii. The current study employed the cross-sectional design instead of longitudinal design. The cross-sectional data limits the extent to which causality can be inferred from the results, which further restricts the acquisition of on the accurate directions of the relationships between the variables of the study.
- iv. A convenience sampling method was used to recruit the respondents for this study. Only selected HEIs which were easily accessible to the researcher were chosen to be involved in this study. Hence, there is a possibility that the

sample might not be representative of the population of academicians in Malaysia as a whole and might be biased.

- v. The study focuses on several employees' attitudes (job involvement and organizational commitment). As such, the study only explained a portion of the variance in the dependent variables. There may be other variables which are not part of this study, that may have a significant effect on P-O Fit and PNS. It is suggested for future research to add other constructs such as job empowerment, job satisfaction, and organizational identification to the research model in order to determine the impact on P-O Fit.

5.7 DIRECTIONS FOR FUTURE RESEARCH

There are few relevant directions for future research related to this study:

- i. The results of this study are limited to academicians in HEIs. It will be better if this study is replicated for professionals in different sectors, such as the health or industrial sector. The purpose of widening the scope of this study is to ensure that the findings are not limited to just academicians, but are applicable to all organizations. Therefore, it is suggested that future research endeavours should be replicated in different context and samples.
- ii. A longitudinal research is both time consuming and expensive, but future studies may benefit from using the test to the current study's model. The

study could determine the causal links more explicitly through a longitudinal research design.

- iii. The emphasis of this study was to assess the relationships between employees' P-O Fit and their PNS, attitudes, and outcomes. However, various types of fit such as person-job fit, person-group fit, and person-supervisor fit might be used to explain the relationships in the current study. Therefore, it is suggested that this study is replicated by adding different types of fit in a single study to better understand how various types of fit are related to one another and its impacts towards employees' attitudes and outcomes.
- iv. The current study limits the variables of employee outcome to in-role performance and OCB. Future studies should examine other employee outcomes such as intention to quit for the purpose of considering the potential negative effects of P-O Fit. It is possible that employees who fit with their organization may experience increased stress and work-related pressures.
- v. Although this study has clearly demonstrated the importance of analysing the mediating effect in the relationship between P-O Fit and employee outcomes, more research needs to be done in order to gain a better understanding of these relationships. Therefore, future studies may wish to consider the mediating effects of other variables in the relationship.

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APPENDIX A: CONSENT FORM



College of Arts & Social Sciences
Room 626 Maxwell Building
The Crescent
Salford, M5 4WT
Tel: 0161 295 5876

03 March 2014

Nur Qamarina Sharom
University of Salford

Dear Nur

Re: Ethical Approval Application – CASS130013

I am pleased to inform you that based on the information provided, the Research Ethics Panel have no objections on ethical grounds to your project.

Yours sincerely

Deborah Woodman
On Behalf of CASS Research Ethics Panel

APPENDIX B: COVER LETTER



Salford Business School, University of Salford, United Kingdom

Dear Respondents,

I am a doctoral student in the field of Organizational Behaviour, Salford Business School, University of Salford. **My research is focused on P-O Fit and its relationship with PNS, work attitudes and performance.** P-O Fit described as compatibility between employees and organizations that occurs when at least one entity provides what the other needs or, when they are sharing similar values, or both.

This research seeks to improve employees' effectiveness in the organization through exploring the compatibility of employees' values and the organization's values and its relationship with PNS, work attitudes and performance. From this I hope to develop guidelines for employers and leaders on how **to improve their management strategy and ultimately enhance employees' attitude and performance.**

My efforts cannot be made possible without your valuable input. Therefore, I would like to ask for your cooperation to complete the attached questionnaire. **You are asked to spare 10-15 minutes** of your time to fill out the questionnaire as truthfully as possible, answering all the questions.

In this study, **your immediate supervisor also will be invited to comment on your behaviours at work.** All your responses are **confidential** and will be analysed at the group level. Also, no information will be made public that might identify either you or your organization. Therefore, in order to **protect your anonymity** and help me match your questionnaire, I would like you to **write your name on top of the questionnaire.** After completing the questionnaire, **please put it in the envelope provided and I will personally come to collect it myself.**

I look forward to your valuable input and thank you in advance for your assistance in this research.

Yours truly,

Nur Qamarina Sharom

PhD student, University of Salford

Remark: Please note that completion of this questionnaire is **voluntary**. Also, **you are free to withdraw at any time and then your responses will be excluded from the study.** However, by completing this questionnaire it is assumed that you consent to participate in this research. If you would like further information about the study please contact me, Ms. Nur Qamarina Sharom, (N.Q.B.Sharom@edu.salford.ac.uk), or my supervisor, **Dr. Weiyue Wang, (W.Wang1@salford.ac.uk).** He can be contacted through the Salford Business School, University of Salford, M5 4WT Greater Manchester, United Kingdom.

APPENDIX C: FULL QUESTIONNAIRE FOR EMPLOYEES

FULL QUESTIONNAIRE FOR EMPLOYEES

Name of Respondent: _____ Serial No: _____

SECTION A: BACKGROUND INFORMATION

1. Gender ☐ Male ☐ Female
2. Age _____
3. Race ☐ Malay ☐ Indian ☐ Chinese , Other _____
4. Marital Status ☐ Single ☐ Married ☐ Divorced/Separated ☐ Widowed
5. Highest Level of Education ☐ Bachelor's Degree ☐ Master's Degree
☐ Doctoral Degree/PhD , Other _____
6. Type of organization ☐ Public University ☐ Private University , Other _____
7. Current position ☐ Tutor ☐ Lecturer ☐ Senior Lecturer ☐ Associate Professor , Other _____
8. Extra position ☐ Yes ☐ No
9. Job status ☐ Permanent ☐ Contract ☐ Temporary , Other _____
10. Monthly income ☐ Under RM 3000 ☐ RM3001- RM5001
☐ RM5001- RM8000 ☐ Above RM8001
11. How long have you been working here? _____ month/year

SECTION B1.

Listed below are a number of characteristics that may or may not apply to you. Please circle the number for each statement to indicate the extent to which you agree or disagree with that statement.

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree				
I see myself as <i>someone who...</i>				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1.	is talkative	1	2	3	4	5	6	7		
2.	is reserved	1	2	3	4	5	6	7		
3.	Is full of energy	1	2	3	4	5	6	7		
4.	generates a lot of enthusiasm	1	2	3	4	5	6	7		
5.	tends to be quite	1	2	3	4	5	6	7		
6.	has an assertive personality	1	2	3	4	5	6	7		
7.	is sometimes shy, inhibited	1	2	3	4	5	6	7		
8.	is outgoing, sociable	1	2	3	4	5	6	7		
9.	is depressed, blue	1	2	3	4	5	6	7		
10.	is relaxed, handles stress well	1	2	3	4	5	6	7		
11.	can be tense	1	2	3	4	5	6	7		
12.	worries a lot	1	2	3	4	5	6	7		
13.	is emotionally stable, not easily upset	1	2	3	4	5	6	7		
14.	can be moody	1	2	3	4	5	6	7		
15.	remains calm in tense situations	1	2	3	4	5	6	7		
16.	gets nervous easily	1	2	3	4	5	6	7		
17.	tends to find fault with others	1	2	3	4	5	6	7		
18.	is helpful and unselfish with others	1	2	3	4	5	6	7		
19.	starts quarrels with others	1	2	3	4	5	6	7		
20.	has a forgiving nature	1	2	3	4	5	6	7		
21.	is generally trusting	1	2	3	4	5	6	7		
22.	can be cold and aloof	1	2	3	4	5	6	7		
23.	is considerate and kind to almost everyone	1	2	3	4	5	6	7		
24.	is sometimes rude to others	1	2	3	4	5	6	7		

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree				
25.	likes to cooperate with others			1	2	3	4	5	6	7
26.	does a thorough job			1	2	3	4	5	6	7
27.	can be somewhat careless			1	2	3	4	5	6	7
28.	is a reliable worker			1	2	3	4	5	6	7
29.	tends to be disorganized			1	2	3	4	5	6	7
30.	tends to be lazy			1	2	3	4	5	6	7
31.	perseveres until the task is finished			1	2	3	4	5	6	7
32.	does things efficiently			1	2	3	4	5	6	7
33.	makes plans and follows through with them			1	2	3	4	5	6	7
34.	is easily distracted			1	2	3	4	5	6	7
35.	is original, comes up with new ideas			1	2	3	4	5	6	7
36.	is curious about many different things			1	2	3	4	5	6	7
37.	is ingenious, a deep thinker			1	2	3	4	5	6	7
38.	has an active imagination			1	2	3	4	5	6	7
39.	is inventive			1	2	3	4	5	6	7
40.	values artistic, aesthetic experience			1	2	3	4	5	6	7
41.	prefers work that is routine			1	2	3	4	5	6	7
42.	likes to reflect, play with ideas			1	2	3	4	5	6	7
43.	has few artistic interests			1	2	3	4	5	6	7
44.	is sophisticated in art, music or literature			1	2	3	4	5	6	7

B2. Please circle the appropriate response which most accurately describes you and the organization.

1: Please assess the degree of your work values for the organization you are working with

2: Please assess the degree of your thoughts of your organizational values

1= Strongly unimportant	2= Not important	3=somewhat important	4= neither important nor unimportant	5= important	6= very important	7= Strongly important							
Conditions		1. How important is this to you?						2. How important is this in your organization?					
1. Altruism <i>e.g making the world a better place</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					
2. Relationships <i>e.g forming relationships with co-workers</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					
3. Pay <i>e.g. salary level</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					
4. Job Security <i>e.g being certain of keeping my job</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					
5. Authority <i>e.g a clear chain of command</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					
6. Prestige <i>e.g gaining respect</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					
7. Variety <i>e.g doing many different things on the job</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					
8. Autonomy <i>e.g self determining the way my work is done</i>		1 2 3 4 5 6 7						1 2 3 4 5 6 7					

B3. Listed below are a number of statements that describe your commitment to your current job. Please circle the response that best indicates your level of agreement or disagreement with each of the following statements.

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree				
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1.	The major satisfaction in my life comes from my job			1	2	3	4	5	6	7
2.	The most important things that happen to me involve my job			1	2	3	4	5	6	7
3.	I live, eat and breath my job			1	2	3	4	5	6	7
4.	I am very much involved personally in my work			1	2	3	4	5	6	7
5.	I am really perfectionist about my work			1	2	3	4	5	6	7
6.	Most things in life are more important than work			1	2	3	4	5	6	7
7.	The most important things that happen to me involved my present job			1	2	3	4	5	6	7
8.	I would be very happy to spend the rest of my career with this organization			1	2	3	4	5	6	7
9.	I enjoy discussing my organization with people outside it			1	2	3	4	5	6	7
10.	I really feel as if this organization's problem are my own			1	2	3	4	5	6	7
11.	I think that I could easily become as attached to another organization as I am to this one			1	2	3	4	5	6	7
12.	I do not feel like 'part of the family' at my organization			1	2	3	4	5	6	7
13.	I do not feel 'emotionally attached' to this organization			1	2	3	4	5	6	7
14.	This organization has a great deal of personal meaning for me			1	2	3	4	5	6	7
15.	I do not feel a strong sense of belonging to my organization			1	2	3	4	5	6	7
16.	I am not afraid of what might happen if I quit my job without having another one lined up			1	2	3	4	5	6	7
17.	It would be very hard for me to leave my organization right now, even if I wanted to			1	2	3	4	5	6	7
18.	Too much in my life would be disrupted if I decided I wanted to leave my organization now			1	2	3	4	5	6	7
19.	It would not be too costly for me to leave my organization now			1	2	3	4	5	6	7
20.	Right now, staying with my organization is a matter of necessity as much as desire			1	2	3	4	5	6	7
21.	I feel that I have too few options to consider leaving this organization			1	2	3	4	5	6	7
22.	One of the few serious consequences of leaving this organization would be the scarcity of available alternatives			1	2	3	4	5	6	7
23.	One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice – another organization may not match the overall benefits I have here			1	2	3	4	5	6	7
24.	I think that people these days move from company to company too often			1	2	3	4	5	6	7
25.	I do not believe that a person must always be loyal to his or her organization			1	2	3	4	5	6	7
26.	Jumping from organization to organization does not seem at all unethical to me			1	2	3	4	5	6	7

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree				
27. One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain				1	2	3	4	5	6	7
28. If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization				1	2	3	4	5	6	7
29. I was taught to believe in the value of remaining loyal to one organization				1	2	3	4	5	6	7
30. Things were better in the days when people stayed with organization for most of their careers				1	2	3	4	5	6	7
31. I do not think that wanting to be a 'company man' or 'company woman' is sensibly anymore				1	2	3	4	5	6	7

FULL QUESTIONNAIRE FOR EMPLOYEES

Name of Respondent: _____ Serial No: _____

B4. Listed below are a number of statements that describe your satisfaction in the current organization. Please circle the response that best indicates your level of agreement or disagreement with each of the following statements.

1= Strongly Dissatisfied	2= Dissatisfied	3= Moderately Dissatisfied	4= Neither satisfied nor dissatisfied	5= Moderately Satisfied	6= Satisfied			7= Strongly Satisfied		
To what extent do you <u>satisfy</u> each of the following statements?				Strongly Dissatisfied	Dissatisfied	Moderately Dissatisfied	Neither Satisfied nor dissatisfied	Moderately Satisfied	Satisfied	Strongly Satisfied
1. I feel free to express my ideas and opinions in this job	1	2	3	4	5	6	7			
2. I feel like I can be myself at my job	1	2	3	4	5	6	7			
3. At work, I often feel like I have to follow other people commands	1	2	3	4	5	6	7			
4. If I could choose, I would do things at work differently	1	2	3	4	5	6	7			
5. In my job, I feel forced to do things I do not want to do	1	2	3	4	5	6	7			
6. I feel free to do my job the way I think it could be best done	1	2	3	4	5	6	7			
7. The tasks I have to do at work are in line with what I really want to do	1	2	3	4	5	6	7			
8. I do not really feel competent in my job	1	2	3	4	5	6	7			
9. I really master my tasks at my job	1	2	3	4	5	6	7			
10. I feel competent at my job	1	2	3	4	5	6	7			
11. I doubt whether I am able to execute my job properly	1	2	3	4	5	6	7			
12. I have the feeling that I can even accomplish the most difficult tasks at work	1	2	3	4	5	6	7			
13. I am good at the things I do in my job	1	2	3	4	5	6	7			
14. I do not really feel connected with other people at my job	1	2	3	4	5	6	7			
15. At work, I feel part of a group	1	2	3	4	5	6	7			
16. I do not really mix with other people at my job	1	2	3	4	5	6	7			
17. At work, I can talk with people about things that really matter to me	1	2	3	4	5	6	7			
18. I often feel alone when I am with my colleagues	1	2	3	4	5	6	7			
19. At work, there are people who really understand me	1	2	3	4	5	6	7			
20. Some people I work with are close friends of mine	1	2	3	4	5	6	7			
21. At work, no one cares about me	1	2	3	4	5	6	7			

B5. Listed below are a number of statements that describe your feelings in the current organization. Please circle the response that best indicates your level of agreement or disagreement with each of the following statements.

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree				
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1. When someone criticizes my organization, it feels like a personal insult				1	2	3	4	5	6	7
2. I am very interested in what others think about my organization				1	2	3	4	5	6	7
3. When I talk about this organization, I usually say 'we' rather than 'they'				1	2	3	4	5	6	7
4. This organization's success is my successes				1	2	3	4	5	6	7
5. When someone praises this organization, it feels like a personal compliment				1	2	3	4	5	6	7
6. If a story in the media criticized this organization, I would feel embarrassed				1	2	3	4	5	6	7
7. I am worried about having to leave my job before I would like to				1	2	3	4	5	6	7
8. I am not concerned about leaving my job in the near future				1	2	3	4	5	6	7
9. I feel uneasy about losing my job in the near future				1	2	3	4	5	6	7

B6. Listed below are a number of statements that describe your experiences in your current organization. Please circle the response that best indicates your level of agreement or disagreement with each of the following statements.

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree		7= Strongly Agree			
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1.	My work schedule is fair	1	2	3	4	5	6	7		
2.	I think that my level of pay is fair	1	2	3	4	5	6	7		
3.	I consider my work load to be quite fair	1	2	3	4	5	6	7		
4.	Overall, the rewards I receive here are quite fair	1	2	3	4	5	6	7		
5.	I feel that my job responsibilities are fair	1	2	3	4	5	6	7		
6.	Job decisions are made by the dean in an unbiased manner	1	2	3	4	5	6	7		
7.	My dean makes sure that all employees' concerns are heard before job decisions are made	1	2	3	4	5	6	7		
8.	To make job decisions, my dean collects accurate and complete information	1	2	3	4	5	6	7		
9.	My dean clarifies decisions and provides additional information when requested by employees	1	2	3	4	5	6	7		
10.	All job decisions are applied consistently across all affected employees	1	2	3	4	5	6	7		
11.	Employees are allowed to challenge or appeal job decisions made by the dean	1	2	3	4	5	6	7		
12.	When decisions are made about my job, the dean treats me with kindness and consideration	1	2	3	4	5	6	7		
13.	When decisions are made about my job, the dean treats me with respect and dignity	1	2	3	4	5	6	7		
14.	When decisions are made about my job, the dean is sensitive to my personal needs	1	2	3	4	5	6	7		
15.	When decisions are made about my job, the dean deals with me in a truthful manner	1	2	3	4	5	6	7		
16.	When decisions are made about my job, the dean shows concern for my rights as an employee	1	2	3	4	5	6	7		
17.	Concerning decisions made about my job, the dean discusses the implications of the decisions with me	1	2	3	4	5	6	7		
18.	The dean offers adequate justification for decisions made about my job	1	2	3	4	5	6	7		
19.	When making decisions about my job, the dean offers explanations that make sense to me	1	2	3	4	5	6	7		
20.	My dean explains very clearly any decision made about my job	1	2	3	4	5	6	7		

B7. Listed below are a number of statements that describe yourself in the current organization. Please circle the response that best indicates your level of agreement or disagreement with each of the following statements.

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree		7= Strongly Agree			
How <u>true</u> the statement is for you?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1. I know that I am good because everybody keeps telling me so	1	2	3	4	5	6	7			
2. I like to be the centre of attention	1	2	3	4	5	6	7			
3. I think I am a special person	1	2	3	4	5	6	7			
4. I like having authority over people	1	2	3	4	5	6	7			
5. I find it easy to manipulate people	1	2	3	4	5	6	7			
6. I insist upon getting the respect that is due me	1	2	3	4	5	6	7			
7. I am apt to show off if I get the chance	1	2	3	4	5	6	7			
8. I always know what I am doing	1	2	3	4	5	6	7			
9. Everybody likes to hear my stories	1	2	3	4	5	6	7			
10. I expect a great deal from other people	1	2	3	4	5	6	7			
11. I really like to be the centre of attention	1	2	3	4	5	6	7			
12. People always seem to recognize my authority	1	2	3	4	5	6	7			
13. I am going to be a great person	1	2	3	4	5	6	7			
14. I can make anybody believe anything I want them to	1	2	3	4	5	6	7			
15. I am more capable than other people	1	2	3	4	5	6	7			
16. I am an extraordinary person	1	2	3	4	5	6	7			

B8. Listed below are a number of statements that describe your motivation and behaviour/s at work. Please circle the response that best indicates your level of agreement or disagreement with each of the following statements.

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree			7= Strongly Agree		
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1. The work I do is very important to me				1	2	3	4	5	6	7
2. My job activities are personally meaningful to me				1	2	3	4	5	6	7
3. The work I do is meaningful to me				1	2	3	4	5	6	7
4. I am confident about my ability to do my job				1	2	3	4	5	6	7
5. I am self-assured about my capabilities to perform my work activities				1	2	3	4	5	6	7
6. I have mastered the skills necessary for my job				1	2	3	4	5	6	7
7. I have significant autonomy in determining how I do my job				1	2	3	4	5	6	7
8. I can decide on my own how to go about doing my work				1	2	3	4	5	6	7
9. I have considerable opportunity for independence and freedom in how I do my job				1	2	3	4	5	6	7
10. My impact on what happens in my department is large				1	2	3	4	5	6	7
11. I have a great deal of control over what happens in my department				1	2	3	4	5	6	7
12. I have significant influence over what happens in my department				1	2	3	4	5	6	7
13. I adequately complete assigned duties				1	2	3	4	5	6	7
14. I fulfill responsibilities specified in the job description				1	2	3	4	5	6	7

15. I engage in activities that will directly affect my performance evaluation	1	2	3	4	5	6	7
16. I fail to perform essential duties	1	2	3	4	5	6	7
17. I help others who have been absent	1	2	3	4	5	6	7
18. I help others who have heavy workloads	1	2	3	4	5	6	7
19. I assist supervisor with his/her work (when not asked)	1	2	3	4	5	6	7
20. I pass along information to co-workers	1	2	3	4	5	6	7
21. My attendance at work is above the norm	1	2	3	4	5	6	7
22. I take undeserved work breaks	1	2	3	4	5	6	7
23. I complain about insignificant things at work	1	2	3	4	5	6	7
24. I conserve and protect organizational property	1	2	3	4	5	6	7

B9. Listed below are a number of statements that describe your effort in your current organization. Please circle the response that best indicates your level of agreement or disagreement with each of the following statements.

1= Strongly unimportant	2= Not important	3=somewhat important	4= neither important nor unimportant	5= important	6= very important		7= Strongly important			
How <u>confident</u> would you feel?				Strongly unimportant	Not important	Somewhat important	Neither important nor unimportant	Important	Very important	Strongly important
1. Analyzing a long-term problem to find a solution	1	2	3	4	5	6	7			
2. Representing your work area in meetings with senior management	1	2	3	4	5	6	7			
3. Designing new procedures for your work area	1	2	3	4	5	6	7			
4. Making suggestions to management about ways to improve the working of your section	1	2	3	4	5	6	7			
5. Contributing to discussions about the company's strategy	1	2	3	4	5	6	7			
6. Writing a proposal to spend money in your work area	1	2	3	4	5	6	7			
7. Helping to set targets/goals in your work area	1	2	3	4	5	6	7			
8. Contacting people outside the company (e.g., suppliers, customers) to discuss problems	1	2	3	4	5	6	7			
9. Presenting information to a group colleagues	1	2	3	4	5	6	7			
10. Visiting people from other departments to suggest doing things differently	1	2	3	4	5	6	7			

Thank you very much for your valuable time and participation.

APPENDIX D: FULL QUESTIONNAIRE FOR IMMEDIATE SUPERVISORS

Full Questionnaire for Immediate Supervisors



Salford Business School, University of Salford, United Kingdom

Dear Respondents,

I am a doctoral student in the field of Organizational Behaviour, Salford Business School, University of Salford. My research focuses on person-organization fit and its relationship with psychological need satisfaction, work attitudes and performance. Person-organization fit is described as a compatibility between employees and organizations that occurs when at least one entity provides what the other needs or, when they are sharing similar values or both.

This research seeks to improve employees' effectiveness in the organization through exploring the compatibility of employees' values and the organization's values and its relationship with psychological need satisfaction, work attitudes and performance. From this I hope to develop guidelines for employers and leaders on how to improve their management strategy and ultimately enhance employees' attitude and performance.

In this study, immediate supervisors are also invited to comment on their subordinates' behaviours at work. My efforts cannot be made possible without your valuable input. Therefore, I would like to ask for your cooperation to complete the attached questionnaire. You are asked to spare 5 minutes of your time to fill out the questionnaire as truthfully as possible, answering all the questions.

All your responses are confidential and will be analysed at the group level. Also, no information will be made public that might identify you or your organization. The name of your subordinate who you will comment is written in the next page. After completing the questionnaire, please put in the envelope provided and I will personally come to collect myself.

I look forward to your valuable input and thank you in advance for your assistance in this research.

Yours truly,
Nur Qamarina Sharom
PhD student, University of Salford

Remark: Please note that completion of this questionnaire is voluntary. Also, you are free to withdraw at any time and then your responses will be excluded from the study. However, by completing this questionnaire it is assumed that you consent to participate in this research. If you would like further information about the study, please contact me, Ms. Nur Qamarina Sharom, (N.Q.B.Sharom@edu.salford.ac.uk), or my supervisor, Dr. Weiyue Wang, (W.Wang1@salford.ac.uk). He can be contacted through the Salford Business School, University of Salford, M5 4WT, Greater Manchester, United Kingdom.

FULL QUESTIONNAIRE FOR IMMEDIATE SUPERVISOR

Subordinate's name: _____

Serial No: _____

SECTION A: YOUR SUBORDINATE'S BEHAVIOR AT WORK

Please circle the response which most accurately reflects the extent to which you agree or disagree with each statement

1= Strongly Disagree	2= Disagree	3= Somewhat disagree	4= Neither agree nor disagree	5= Somewhat Agree	6= Agree	7= Strongly Agree				
To what extent do you <u>agree</u> with each of the following statements?				Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
1.	He/she adequately completes assigned duties			1	2	3	4	5	6	7
2.	He/she fulfills responsibilities specified in the job description			1	2	3	4	5	6	7
3.	He/she performs tasks that are expected of him/her			1	2	3	4	5	6	7
4.	He/she meets formal performance requirements of the job			1	2	3	4	5	6	7
5.	He/she engages in activities that will directly affect his/her performance evaluation			1	2	3	4	5	6	7
6.	He/she neglects aspects of the job he/she is obligated to perform			1	2	3	4	5	6	7
7.	He/she fails to perform essential duties			1	2	3	4	5	6	7
8.	He/she helps others who have been absent			1	2	3	4	5	6	7
9.	He/she helps others who have heavy workloads			1	2	3	4	5	6	7
10.	He/she assists supervisor with his/her work (when not asked)			1	2	3	4	5	6	7
11.	He/she takes time to listen to co-workers' problems and worries			1	2	3	4	5	6	7
12.	He/she goes out of way to help new employees			1	2	3	4	5	6	7
13.	He/she takes a personal interest in other employees			1	2	3	4	5	6	7
14.	He/she passes along information to co-workers			1	2	3	4	5	6	7
15.	His/her attendance at work is above the norm			1	2	3	4	5	6	7
16.	He/she gives advance notice when unable to come to work			1	2	3	4	5	6	7
17.	He/she takes undeserved work breaks			1	2	3	4	5	6	7
18.	He/she has a great deal of time spent with personal phone conversations			1	2	3	4	5	6	7
19.	He/she complains about insignificant things at work			1	2	3	4	5	6	7
20.	He/she conserves and protects organizational property			1	2	3	4	5	6	7
21.	He/she adheres to informal rules devised to maintain order			1	2	3	4	5	6	7

SECTION B: BACKGROUND INFORMATION

Please tick in the box given which most accurately represents your information and fill in where necessary.

- Gender ☐ Male ☐ Female
- Age _____
- Race ☐ Malay ☐ Indian ☐ Chinese Other _____
- Marital Status ☐ Single ☐ Married ☐ Divorced/Separated ☐ Widowed
- Highest Level of Education ☐ Bachelor's Degree ☐ Master's Degree ☐ Doctoral Degree/PhD Other _____
- Current position _____
- How long have you been working here? _____

Thank you very much for your valuable time and participation.